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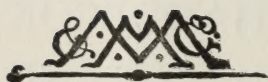
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A HANDBOOK OF
BRITISH INLAND BIRDS



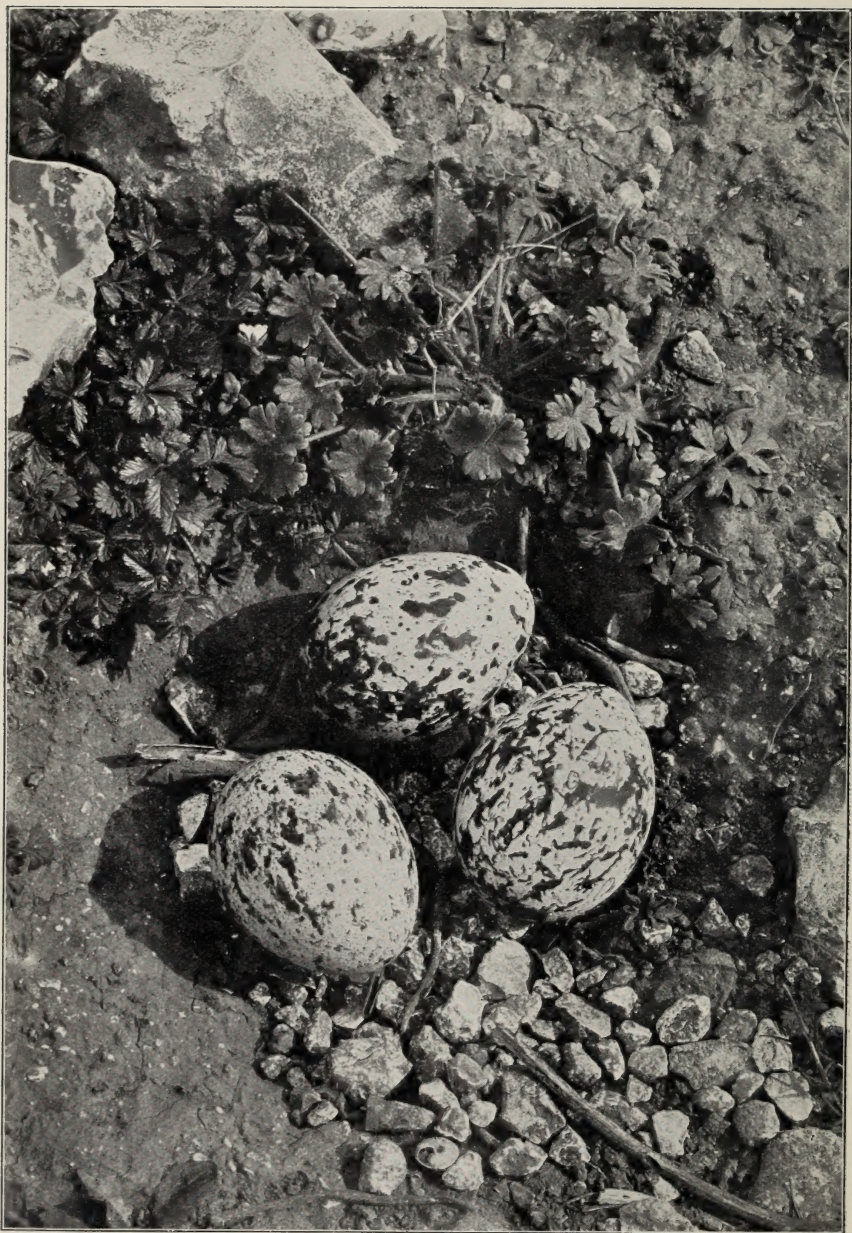


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STONE CURLEW'S NEST.

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A HANDBOOK OF BRITISH INLAND BIRDS

BY
ANTHONY COLLETT

With Coloured and Outline Plates of Eggs

BY
ERIC PARKER

London
MACMILLAN AND CO., LIMITED
NEW YORK: THE MACMILLAN COMPANY

1906

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PREFACE

THE chief intention of this handbook is to supply as plain and simple a means as possible for the identification of those species of birds, as well as their nests and eggs, which are to be met with in the inland districts of this country. Though we have a very large number of shore and sea birds, they so seldom, generally speaking, happen to cross the path of by far the greater number of persons interested in bird life, that it has seemed that there should be a useful place for a book in which the space gained by omitting their numerous company, was devoted to a closer account of the inland species.

The book is obviously intended for readers whose knowledge of ornithology is of an elementary character. In all those cases where the authors

have found by experience that confusion is easy or probable, either between birds, or nests, or eggs, a careful attempt has been made to set forth the recognisable points of difference in as clear and plainly contrasted a manner as possible. In the descriptions of the birds themselves, the aim has generally been to avoid a confusing heap of detail, and to refer, as a rule, to those salient features in their plumage, flight, or cries, which make recognition most easy. A few of the leading problems of bird life, such as migration, and the theory of protective imitation, have been touched upon in cases where they most naturally excite attention during bird-study and birds'-nesting in the field. The coloured illustrations have, in all cases, been reproduced from paintings of carefully chosen and characteristic examples. It is hoped that the outline drawings, representing the typical shape and size of the white, unspotted eggs, will prove a useful assistance in identifying those often puzzling specimens.

In the course of preparing the descriptions, use has frequently been made of Mr. Howard Saunders's well-known and excellent *Illustrated Manual of*

British Birds ; and the classification and nomenclature of that work have in most cases been followed. For first-hand descriptions of the habits of one or two rarer species, the writer is indebted to the observation and kindness of Mr. R. T. Bridge, of Charterhouse.

April, 1906.

ILLUSTRATIONS

Stone Curlew's Nest	<i>Frontispiece</i>
Plates I—X	<i>To face p. xx</i>

A CLASSIFIED LIST OF BREEDING SPECIES AND REGULAR VISITORS

(*The visitors are distinguished by the English, as well as the Latin names, being printed in italics.*)

Order PASSERES.

Family TURDIDÆ.

Sub-family TURDINÆ.

Genus TURDUS.—Missel Thrush (*T. viscivorus*, p. 1); Song Thrush (*T. musicus*, p. 5); Blackbird (*T. merula*, p. 8); *Redwing* (*T. iliacus*, p. 10); *Fieldfare* (*T. pilaris*, p. 10); Ring Ouzel (*T. torquatus*, p. 12).

Genus SAXICOLA.—Wheatear (*S. oenanthe*, p. 13).

Genus PRATINCOLA.—Whinchat (*P. rubetra*, p. 15); Stonechat (*P. rubicola*, p. 17).

Genus RUTICILLA.—Redstart (*R. phoenicurus*, p. 18).

Genus ERITHACUS.—Robin (*E. rubecula*, p. 21).

Genus DAULIAS.—Nightingale (*D. luscinia*, p. 23).

Sub-family SYLVIINÆ.

Genus SYLVIA.—Whitethroat (*S. cinerea*, p. 27); Lesser Whitethroat (*S. curruca*, p. 29); Blackcap (*S. atricapilla*, p. 31); Garden Warbler (*S. hortensis*, p. 34); Dartford Warbler (*S. undata*, p. 35).

xii CLASSIFIED LIST OF BREEDING SPECIES

Genus REGULUS.—Golden-crested Wren (*R. cristatus*, p. 37).

Genus PHYLLOSCOPUS.—Chiffchaff (*P. rufus*, p. 38); Willow Wren (*P. trochilus*, p. 41); Wood Wren (*P. sibilatrix*, p. 44).

Genus ACROCEPHALUS.—Reed Warbler (*A. streperus*, p. 45); Marsh Warbler (*A. palustris*, p. 48); Sedge Warbler (*A. phragmitis*, p. 51).

Genus LOCUSTELLA.—Grasshopper Warbler (*L. naevia*, p. 54).

Sub-family ACCENTORINÆ.

Genus ACCENTOR.—Hedge Sparrow (*A. modularis*, p. 55).

Family CINCLIDÆ.

Genus CINCLUS.—Dipper (*C. aquaticus*, p. 57).

Family PANURIDÆ.

Genus PANURUS.—Bearded Titmouse (*P. biarmicus*, p. 60).

Family PARIDÆ.

Genus ACREDULA.—Long-tailed Titmouse (*A. caudata*, p. 62).

Genus PARUS.—Great Titmouse (*P. major*, p. 65); Cole Titmouse (*P. ater*, p. 67); Marsh Titmouse (*P. palustris*, p. 68); Blue Titmouse (*P. coeruleus*, p. 70); Crested Titmouse (*P. cristatus*, p. 71).

Family SITTIDÆ.

Genus SITTA.—Nuthatch (*S. caesia*, p. 72).

Family TROGLODYTIDÆ.

Genus TROGLODYTES.—Wren (*T. parvulus*, p. 75).

Family CETHIIDÆ.

Genus CETHIA.—Tree-creeper (*C. familiaris*, p. 78).

Family MOTACILLIDÆ.

Genus MOTACILLA.—Pied Wagtail (*M. lugubris*, p. 81);
White Wagtail (*M. alba*, p. 82); *Grey Wagtail*
(*M. melanope*, p. 83); *Yellow Wagtail* (*M. raii*, p.
84).

Genus ANTHUS.—Tree Pipit (*A. trivialis*, p. 86); Meadow
Pipit (*A. pratensis*, p. 87); Rock Pipit (*A. obscurus*,
p. 88).

Family LANIIDÆ.

Genus LANIUS.—Red-backed Shrike (*L. collurio*, p. 88).

Family MUSCICAPIDÆ.

Genus MUSCICAPA.—Spotted Flycatcher (*M. grisola*, p. 91);
Pied Flycatcher (*M. atricapilla*, p. 93).

Family HIRUNDINIDÆ.

Genus HIRUNDO.—Swallow (*H. rustica*, p. 95).

Genus CHELIDON.—House Martin (*C. urbica*, p. 98).

Genus COTILE.—Sand Martin (*C. riparia*, p. 99).

Family FRINGILLIDÆ.

Sub-family FRINGILLINÆ.

Genus LIGURINUS.—Greenfinch (*L. chloris*, p. 101).

Genus COCCOTHAUSTES.—Hawfinch (*C. vulgaris*, p. 105).

Genus CARDUELIS.—Goldfinch (*C. elegans*, p. 107); Siskin
(*C. spinus*, p. 109).

xiv CLASSIFIED LIST OF BREEDING SPECIES

- Genus PASSER.—House Sparrow (*P. domesticus*, p. 110);
Tree Sparrow (*P. montanus*, p. 113).
Genus FRINGILLA.—Chaffinch (*F. coelebs*, p. 114); Brambling (*F. montifringilla*, p. 117).
Genus LINOTA.—Linnet (*L. cannabina*, p. 118); Mealy Redpoll (*L. linaria*, p. 120); Lesser Redpoll (*L. rufescens*, p. 120); Twite (*L. flavirostris*, p. 122).
Genus PYRRHULA.—Bullfinch (*P. europaea*, p. 123).
Genus LOXIA.—Crossbill (*L. curvirostra*, p. 125).

Sub-family EMBERIZINÆ.

- Genus EMBERIZA.—Corn Bunting (*E. miliaria*, p. 128); Yellow-hammer (*E. citrinella*, p. 130); Cirl Bunting (*E. cirlus*, p. 132); Reed Bunting (*E. schoeniclus*, p. 134).
Genus PLECTROPHENAX.—Snow Bunting (*P. nivalis*, p. 136).

Family STURNIDÆ

- Genus STURNUS.—Starling (*S. vulgaris*, p. 138).

Family CORVIDÆ.

- Genus PYRRHOCORAX.—Chough (*P. graculus*, p. 142).
Genus GARRULUS.—Jay (*G. glandarius*, p. 143).
Genus PICA.—Magpie (*P. rustica*, p. 145).
Genus CORVUS.—Jackdaw (*C. monedula*, p. 148); Raven (*C. corax*, p. 150); Carrion Crow (*C. corone*, p. 152); Hooded Crow (*C. cornix*, p. 156); Rook (*C. frugilegus*, p. 157).

Family ALAUDIDÆ.

- Genus ALAUDA.—Sky Lark (*A. arvensis*, p. 160); Wood Lark (*A. arborea*, p. 161).

Order PICARIÆ.

Family CYPSELIDÆ.

Genus CYPSELUS.—Swift (*C. apus*, p. 163).

Family CAPRIMULGIDÆ.

Genus CAPRIMULGUS.—Nightjar (*C. europæus*, p. 165).

Family PICIDÆ.

Sub-family IYNGINÆ.

Genus IYNX.—Wryneck (*I. torquilla*, p. 167).

Sub-family PICINÆ.

Genus GECINUS.—Green Woodpecker (*G. viridis*, p. 170).

Genus DENDROCOPUS.—Great Spotted Woodpecker (*D. major*, p. 173); Lesser Spotted Woodpecker (*D. minor*, p. 174).

Family ALCEDINIDÆ.

Genus ALCEDO.—Kingfisher (*A. ispida*, p. 175).

Family CUCULIDÆ.

Genus CUCULUS.—Cuckoo (*C. canorus*, p. 179).

Order STRIGES.

Family STRIGIDÆ.

Genus STRIX.—Barn Owl (*S. flammea*, p. 182).

Genus ASIO.—Long-eared Owl (*A. otus*, p. 185); Short-eared Owl (*A. accipitrinus*, p. 187).

Genus SYRNIUM.—Tawny Owl (*S. aluco*, p. 188).

xvi CLASSIFIED LIST OF BREEDING SPECIES

Order ACCIPITRES.

Family FALCONIDÆ.

Genus CIRCUS.—Marsh Harrier (*C. aeruginosus*, p. 190);
Hen Harrier (*C. cyaneus*, p. 191); Ash-coloured
Harrier (*C. cineraceus*, p. 192).

Genus BUTEO.—Common Buzzard (*B. vulgaris*, p. 193);
Rough-Legged Buzzard (*B. lagopus*, p. 194).

Genus AQUILA.—Golden Eagle (*A. chrysaëtus*, p. 195).

Genus HALIAËTUS.—White-tailed Eagle (*H. albicilla*, p.
197).

Genus ACCIPITER.—Sparrow Hawk (*A. nisus*, p. 198).

Genus MILVUS.—Kite (*M. iclinus*, p. 200).

Genus PERNIS.—Honey Buzzard (*P. apivorus*, p. 201).

Genus FALCO.—Peregrine Falcon (*F. peregrinus*, p. 203);
Hobby (*F. subbuteo*, p. 204); Merlin (*F. aesalon*, p.
206); Kestrel (*F. tinnunculus*, p. 208).

Genus PANDION.—Osprey (*P. haliaëtus*, p. 210).

Order STEGANOPODES (Cormorants and Gannets).

Order HERODIONES.

Family ARDEIDÆ.

Genus ARDEA.—Common Heron (*A. cinerea*, p. 212).

Genus BOTAURUS.—Bittern (*B. stellaris*, p. 214).

Order ANSERES.

Family ANATIDÆ.

Genus CYGNUS.—Mute Swan (*C. olor*, p. 215).

Genus ANAS.—Mallard (*A. boschas*, p. 217); Gadwall (*A.*
strepera, p. 219).

- Genus SPATULA.—Shoveller (*S. clypeata*, p. 220).
Genus DAFILA.—Pintail (*D. acuta*, p. 221).
Genus NETTION.—Teal (*N. crecca*, p. 222).
Genus QUERQUEDULA.—Garganey (*Q. circia*, p. 223).
Genus MARECA.—Widgeon (*M. penelope*, p. 224).
Genus FULIGULA.—Pochard (*F. ferina*, p. 225); Tufted Duck (*F. cristata*, p. 226).
Genus CLANGULA.—Goldeneye (*C. glaucion*, p. 228).
Genus MERGUS.—Goosander (*M. merganser*, p. 229); Red-breasted Merganser (*M. serrator*, p. 230).

Order COLUMBÆ.

Family COLUMBIDÆ.

- Genus COLUMBA.—Ring Dove (*C. palumbus*, p. 231); Stock Dove (*C. oenas*, p. 235); Rock Dove (*C. livia*, p. 236).
Genus TURTUR.—Turtle Dove (*T. communis*, p. 236).

Order GALLINÆ.

Family TETRAONIDÆ.

- Genus TETRAO.—Capercaillie (*T. urogallus*, p. 238; Black Grouse (*T. tetrix*, p. 241).
Genus LAGOPUS.—Red Grouse (*L. scoticus*, p. 241); Ptarmigan (*L. mutus*, p. 243).
Genus PHASIANUS.—Pheasant (*P. colchicus*, p. 244).
Genus PERDIX.—Partridge (*P. cinerea*, p. 245).
Genus CACCABIS.—Red-legged Partridge (*C. rufa*, p. 247).
Genus COTURNIX.—Quail (*C. communis*, p. 249).

xviii CLASSIFIED LIST OF BREEDING SPECIES

Order GRALLÆ.

Sub-order FULICARIÆ.

Family RALLIDÆ.

Genus CREX.—Land-rail (*C. pratensis*, p. 250).

Genus PORZANA.—Spotted Crake (*P. maruetta*, p. 253).

Genus RALLUS.—Water-rail (*R. aquaticus*, p. 254).

Genus GALLINULA.—Moorhen (*G. chloropus*, p. 255).

Genus FULICA.—Coot (*F. atra*, p. 257).

Order LIMICOLÆ.

Family ŒDICNEMIDÆ.

Genus ŒDICNEMUS.—Stone Curlew (*O. crebitans*, p. 259).

Family CHARADRIIDÆ.

Genus EUDROMIAS.—Dotterel (*E. morinellus*, p. 261).

Genus CHARADRIUS.—Golden Plover (*C. pluvialis*, p. 262).

Genus VANELLUS.—Lapwing (*V. vulgaris*, p. 264).

Genus SCOLOPAX.—Woodcock (*S. rusticula*, p. 266).

Genus GALLINAGO.—Great Snipe (*G. major*, p. 268);
Common Snipe (*G. coelestis*, p. 268); Jack Snipe
(*G. gallinula*, p. 268).

Genus TRINGA.—Dunlin (*T. alpina*, p. 271).

Genus TOTANUS.—Common Sandpiper (*T. hypoleucus*, p. 272); *Green Sandpiper* (*T. ochropus*, p. 273); Red-shank (*T. calidris*, p. 274); Greenshank (*T. canescens*, p. 276).

Genus NUMENIUS.—Curlew (*N. arquatus*, p. 276).

Order GAVIÆ (Terns, Gulls, and Skuas).

Order ALCÆ (Guillemots, Puffins, &c.).

Order PYGOPODES (Divers and Grebes).

Family PODICIPEDIDÆ.

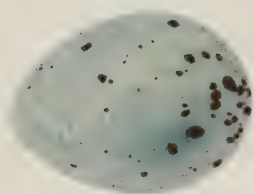
Genus PODICEPS.—Great Crested Grebe (*P. cristatus*, p. 278); Dabchick (*P. fluviatilis*, p. 279).

Order TUBINARES (Petrels and Shearwaters).

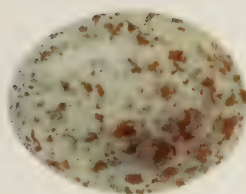
PLATE I.

1. Song Thrush.
2. Missel Thrush.
3. Blackbird.
4. Ring Ouzel.
5. Stonechat.
6. Robin.
7. Hedge Sparrow.
8. Nightingale
9. Whitethroat.
10. Lesser Whitethroat.
- 11 Blackcap.
12. Garden Warbler

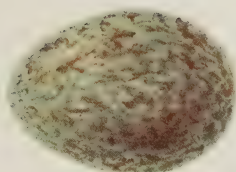
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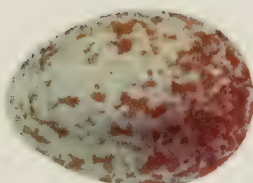
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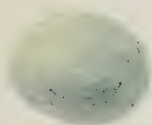
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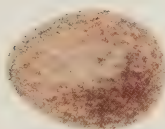
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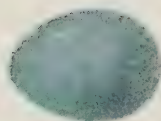
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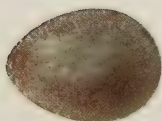
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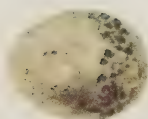
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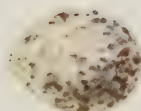
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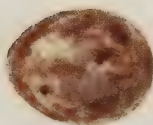
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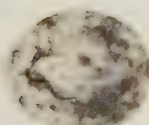
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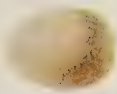


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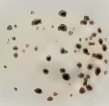
PLATE II.

1. Goldcrest.
2. Chiffchaff.
3. Willow Wren.
4. Wood Wren.
5. Reed Warbler.
6. Marsh Warbler.
7. Sedge Warbler.
8. Grasshopper Warbler.
9. Dartford Warbler.
10. Long-tailed Tit.
11. Blue Tit.
12. Great Tit.
13. Nuthatch.
14. Wren.
15. Flycatcher.
16. Tree Creeper.

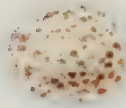
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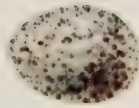
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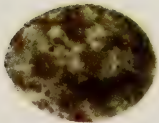
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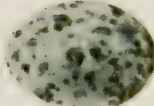
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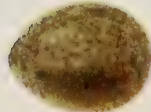
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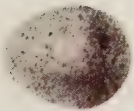
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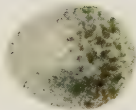
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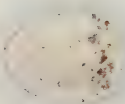
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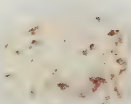
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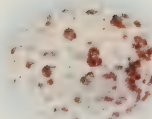
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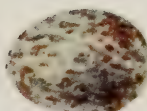
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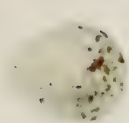


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PLATE III.

1. Linnet.
2. Goldfinch
3. Greenfinch (i).
4. Greenfinch (ii).
5. Chaffinch.
6. Bullfinch.
7. Hawfinch.
8. House Sparrow (i).
9. House Sparrow (ii).
10. Tree Sparrow.
11. Yellow Hammer.
12. Reed Bunting.
13. Corn Bunting.
14. Shrike (i)
15. Shrike (ii).
16. Cuckoo.

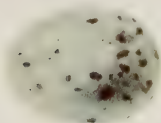
PLATE III.



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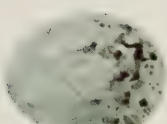
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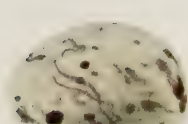
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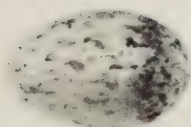
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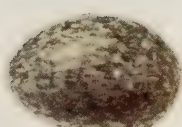
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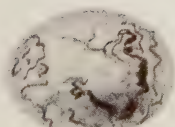
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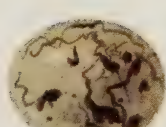
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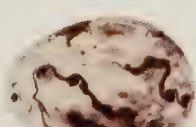
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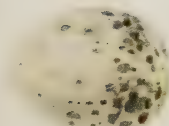
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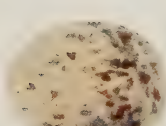
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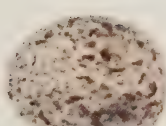
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8. Carrion Crow (ii).

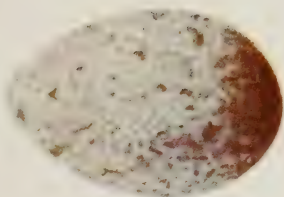
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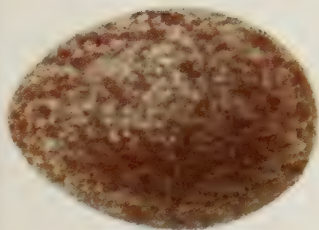
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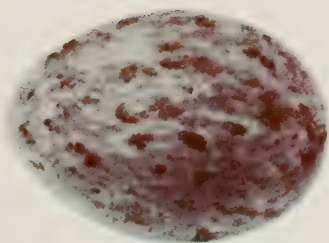
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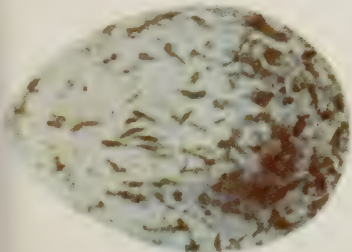
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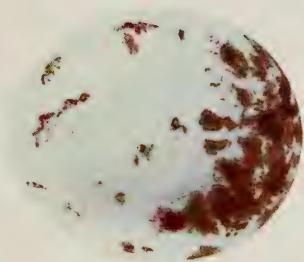


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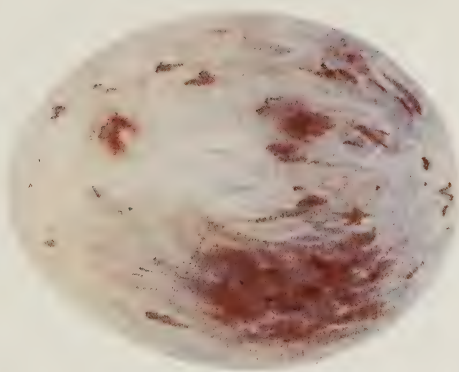
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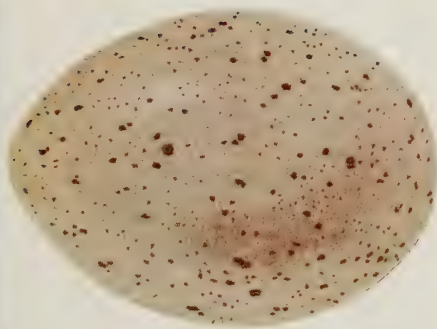
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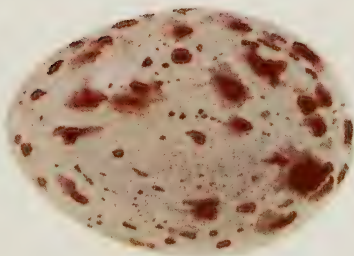
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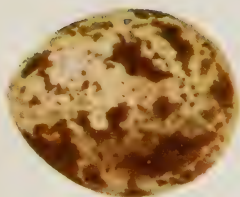
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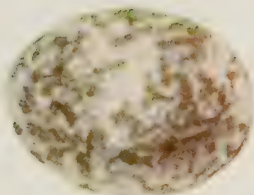
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2. Nightjar.
3. Partridge.
4. Landrail.
5. French Partridge.
6. Pheasant.
7. Grouse.
8. Blackcock.

PLATE VI.



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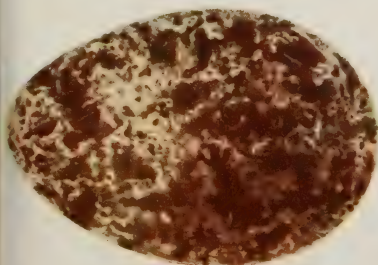
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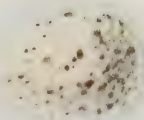
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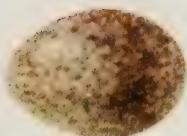
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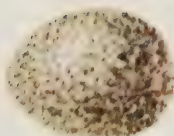
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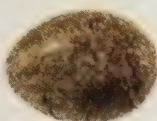
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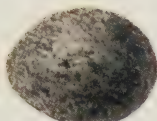
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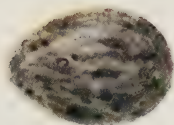
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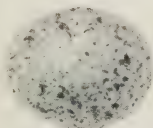
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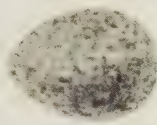
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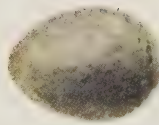
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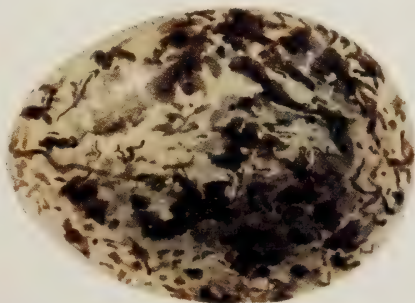
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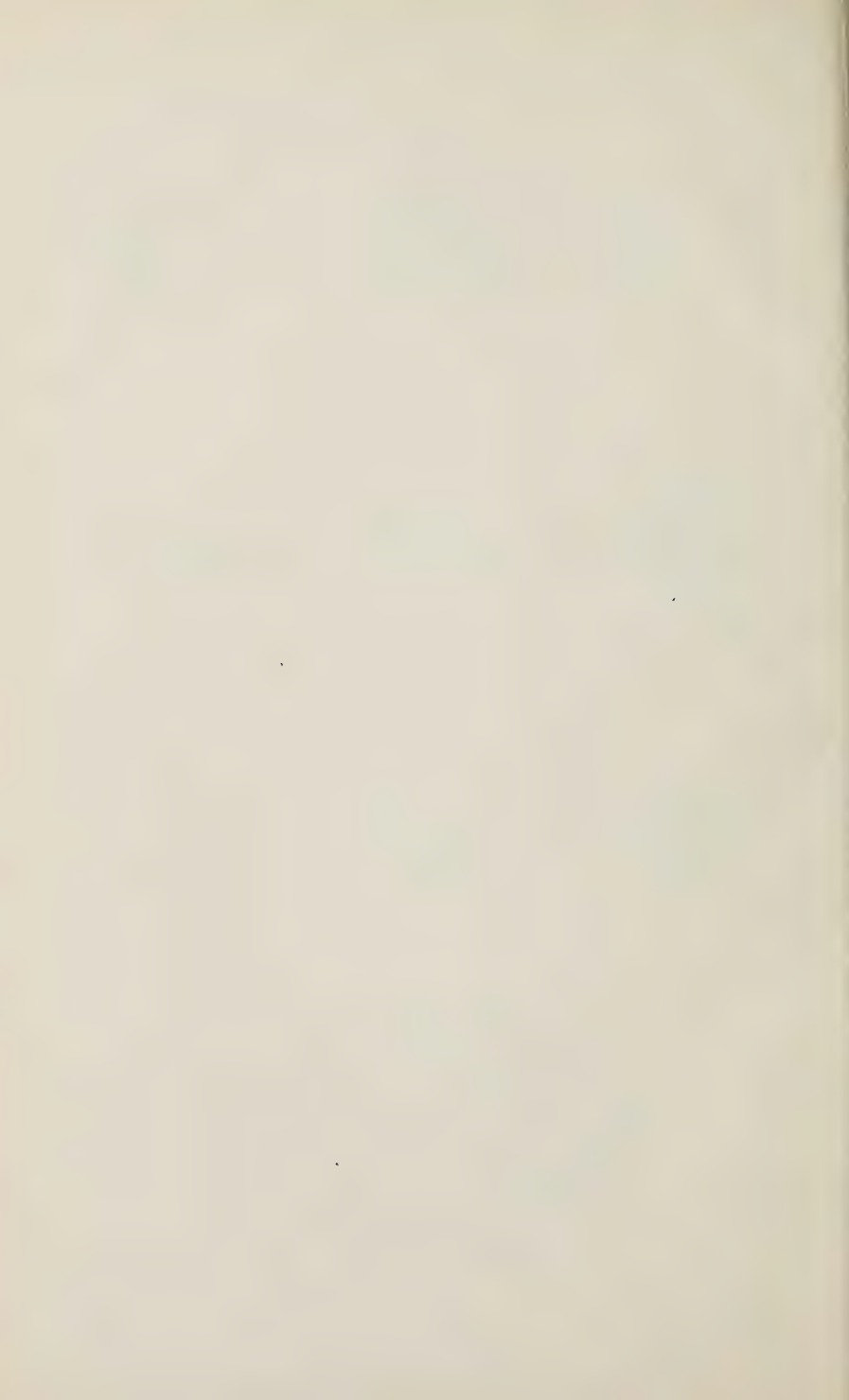




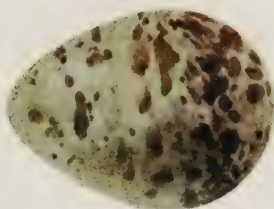
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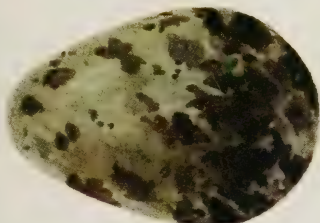
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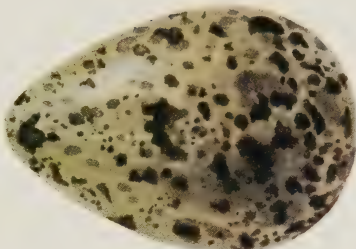
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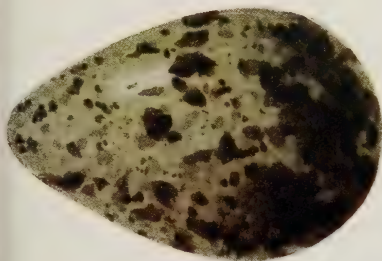
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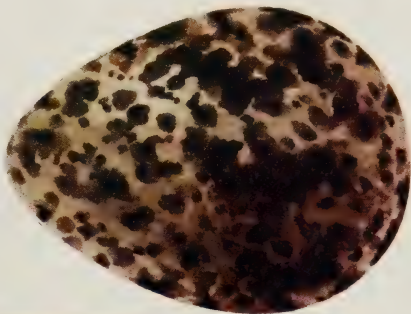
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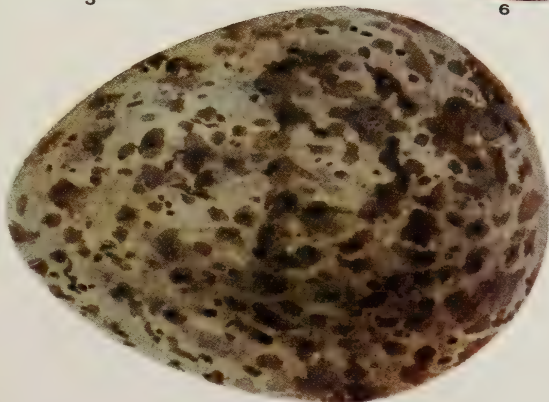
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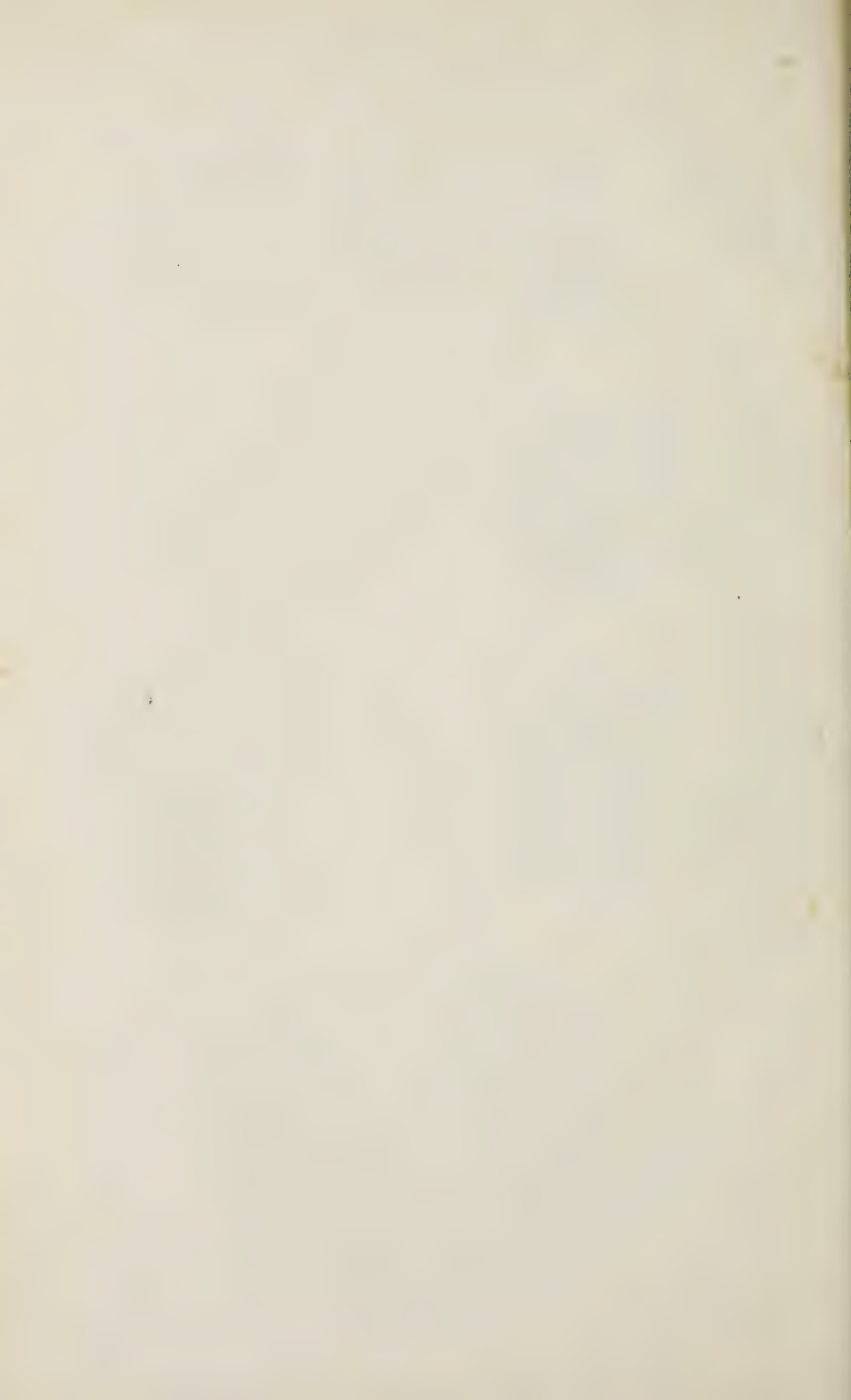
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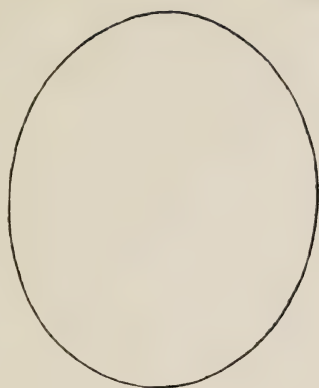
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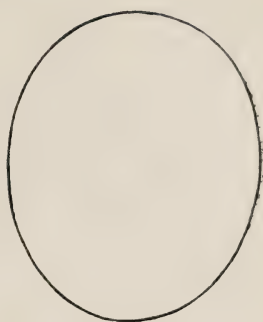
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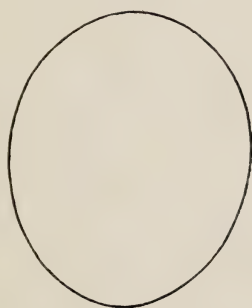
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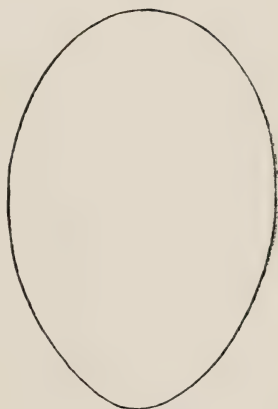
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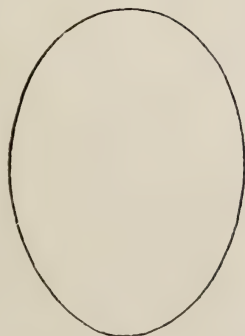
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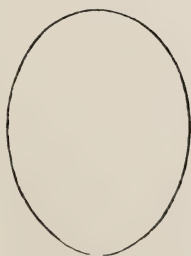
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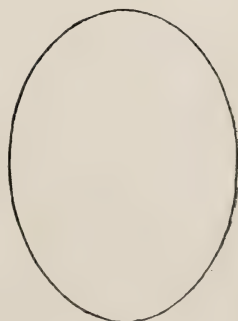
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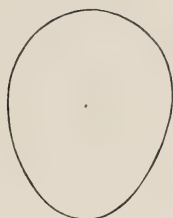
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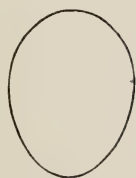
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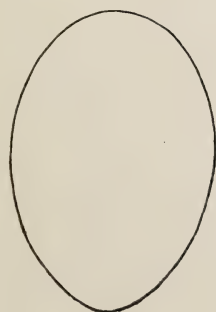
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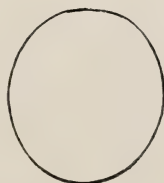
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HANDBOOK OF BRITISH INLAND BIRDS

MISSEL THRUSH.

(*Turdus viscivorus*.)

MISTLETOE THRUSH, Stormcock, Screech Thrush, Holm-screech.—The Thrush family is represented in this country by six species, which include several of the most favourite and familiar British birds. Of these six, three—the Missel Thrush, Song Thrush, and Blackbird—are what is known as resident species ; one, the Ring Ouzel, is a summer visitor, and two, the Fieldfare and Redwing, winter visitors, arriving in autumn from their breeding-places in Norway, Sweden, and Russia, and returning to them again in spring.

But here it is advisable, at the outset of our description, to make some remarks about the use of the terms “resident birds” and “birds of passage,” which apply equally to this family and to most of those succeeding. It must be kept in

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mind most clearly and thoroughly, as the very foundation-stone of any understanding of bird life, that no sharp line can be drawn between migratory and non-migratory birds, for many, indeed most, of our so-called "resident birds" are really migratory in their habits, like the "birds of passage." Missel Thrushes and Robins, for example, move southward in great numbers for the cold months of scarcity, and northward again for the summer months of plenty, just as Cuckoos and Swallows do. Birds' movements are like the swing of a great pendulum. When the pendulum swings south in autumn, it sweeps all the Cuckoos, Swallows, and many other species far beyond our shores altogether, only to bring them back in spring, and these we call birds of passage. Missel Thrushes and Robins, on the other hand, are to be seen in England all the year round, because as fast as some of them leave us for the south, other flocks come pouring in from colder lands to the north; and thus, though the pendulum-swing does carry them south, it does not carry them far enough south to empty England of them altogether during the winter season. Thus it is correct to speak of the Robin and Missel Thrush as resident *species*, because representatives of these species are always with us; but it is far from correct to regard all individual Missel Thrushes and Robins as resident

birds, though owing to the difficulty of distinguishing individuals it is very hard to tell which of those that we may see on any winter's day are home-bred, and which come from abroad.

In the case of the Missel Thrush, the migratory habit is very conspicuous even within the narrow limits of a single garden or orchard, if, as is often the case, he happens to build in it annually. During the autumn months we lose sight of him, and cannot tell whether our own particular Missel Thrush is or is not a member of the harshly chattering flocks that we see devouring the hawthorn or holly berries in frosty weather. But very early in the spring, often, indeed, long before spring begins, he returns to the old precincts, and on the coldest and wildest days is often to be heard exuberantly singing on some lofty bough or tree-top, with that apparent delight in what seems to most other beings most unpleasant weather, which has gained him his name of Stormcock. His voice comes between the Song Thrush's and the Blackbird's in tone, and his song, though it has neither the Blackbird's peculiar softness nor the Song Thrush's variety and compass, has a wildness and freedom which excels them both. The Missel Thrush is distinctly larger than the Song Thrush, though the difference is less observable to an unpractised eye than his taller build and

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bolder, wilder carriage. On the wing he may be distinguished by his dipping flight, and paler greyish back. The nest is very frequently built in gardens and shrubberies, though it is also well distributed in the woods and copses, and the Missel Thrush is particularly fond of nesting in apple-trees, either isolated or in orchards. It doubtless gained the name of Mistletoe Thrush, of which Missel Thrush is merely a contraction, because it was thought to haunt the apple-trees for the sake of eating the mistletoe berries; but this notion, though the Latin name supports it, is not confirmed by its actual habits. The nest is generally built about the beginning of April, and is often very conspicuous. It is firmly planted in a fork of a bough, and the mud core frequently grips the branch on each side much like the fangs of a double tooth, and may be so seen after the rest of the nest has decayed from exposure. It is built externally mainly of moss, dry stems, and tufts of dry grass, sometimes with conspicuous locks of wool protruding, if it is situated near a sheep-pasture, and is lined with fine dry grass. The eggs, four or five in number, are clear, light green, very handsomely spotted with a dense, deep reddish-brown, and clear lilac-pink. The size of the spots varies from large blotches to small, precise flecks. When disturbed

or alarmed about the nest, the bird dashes rapidly round the intruder, uttering its harsh, grating alarm-note, and will even beat off marauding cats or larger egg-stealing birds.

SONG THRUSH.

(*Turdus musicus*.)

Throstle, Mavis, Greybird.—The Song Thrush is almost the best-known and most widely distributed of all our British birds, and if we take into account its persistence in singing as well as the beauty of its song, it perhaps deserves the first place among British songsters. The only time of year when the Song Thrush does not sing, in fact, is for a few weeks after about the middle of July. In September it may be heard beginning again in a weak and undecided fashion, the performers being often, if not usually, the young cock birds of the year, and in mild, open weather in November it is often in brilliant song, continuing more or less frequently, except in hard frost, until the time, late in January or so, when it considers that spring and the singing-season have come in good earnest. Though it is somewhat studied in manner and marked by repetitions of its phrases, the song of no bird is more full of spirit and vigour, and in

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the darkening days of November it is particularly beautiful to hear it proclaiming, as it were, the sure return of spring, with almost as much force and fire as it exhibits in its true spring song. The small proportion of the birds which dwell all the winter in gardens and other sheltered and well-provisioned places begin to nest very early in the year, and have often laid their first set of eggs by the end of February. The more roving birds of the fields begin to build in numbers by the end of March or so, according to the mildness or severity of the season. May is mostly occupied with incubation and the care of the young, but towards the end of the month or in early June there is often a simultaneous appearance of large numbers of fresh nests and eggs again, these being mostly second broods, but some of them possibly the first essays of birds which have been furthest and longest in the south. The nest is built almost anywhere in bushes, trees, and hedges, of moss, twigs, dry garden weeds, and similar material, with a substantial amount of mud well worked into the foundation, and with the curious and well-known lining of smooth, cement-like mud, cow-dung, or wet and rotten touch-wood. The cement lining is sometimes, but rarely, more or less completely omitted if suitable material is not easily to be found. The eggs take thirteen days to hatch after

the bird begins to sit, and four or five is the usual number. They are deep, clear blue, dotted and speckled with black, which sometimes becomes brown, or even crimson, applied in large, bold blotches. They are not very uncommonly pure blue and spotless, and like many eggs of the thrush and crow tribes, often have the markings reversed and heaviest at the smaller end. When one egg out of four or five is very different in size or markings from all the rest, whether the nest is a Thrush's or any other bird's, it is my own experience that the peculiar egg is usually the first to be laid—not, as is generally said, the last. The Thrush is an indefatigable devourer of snails, worms, and other garden pests, and as a fruit-eater in summer he is much less of an offender than the Blackbird, doing indeed but slight total harm. His habit is well-known of carrying his snails to some chosen stone to crush them open upon it, and this “anvil” of his is often to be found surrounded by the sticky fragments of the shells. The Thrush is one of the first birds to suffer from hard weather; after the great frost of 1895, for instance, it was in some of its favourite haunts, instead of the commonest bird, almost one of the scarcest for the first few months of the breeding season.

BLACKBIRD.

(Turdus merula.)

Ouzel, Black Ouzel.—The Blackbird supplies the most familiar and striking example of difference in plumage between the cock and hen birds of a species, the way in which this difference so greatly varies in extent being one of the most curious problems in bird life. The Blackbird's song is softer and more fitful than the Song Thrush's, and he waits till he is sure of spring before he sings it. It is associated in the mind with the first violets and daffodils, rather than with the snowdrops and Christmas roses, like the Thrush's. No song is so deep and rich and mellow, and these qualities, together with its easy, almost indolent, delivery, make it easy to distinguish. The Blackbird is hardly so early a builder as the Thrush, not many nests of his having eggs before the beginning of April. The nest is very similar generally to the Thrush's, and is built in much the same situations, but it is lined with fine, dry grass instead of mud, and is often more ragged and untidy outside, while its average situation is at a less distance from the ground. A Blackbird's nest is more often built actually upon the earth in a hedge-bank than a Thrush's is, and a Thrush's nest is found more often

twenty or thirty feet up in a tree than a Blackbird's. Blackbirds also build not very uncommonly on a ledge or beam in a cowshed or outbuilding, while for a Thrush to nest "indoors" in this way is very rare indeed. The eggs, usually four or five in number, are pale greenish in ground colour, dappled, spotted, or closely speckled with greenish or reddish-brown. The size and number of the markings vary greatly, some eggs being thickly and closely freckled so as almost wholly to hide the ground-colour, others being splashed with ragged spots which leave the ground-colour clearly visible. The egg illustrated is of the commonest average type, and will be seen to incline rather to the former variety than the latter. It is also a little smaller than the average size. In spite of its many variations, it should not be easy to mistake the Blackbird's egg for any other, for since the Redwing and Fieldfare do not nest in this country, the only possible source of confusion is in the case of the Ring Ouzel, which is scarcely found except on mountains and moorlands, where the site of the nest distinguishes it from the Blackbird's, even if the bird itself is not observed.

REDWING.

(Turdus pilaris.)

The Redwing is a winter visitor to this country, arriving about the middle of October, from which date until about the beginning of April it is common in flocks about our fields and hedgerows. Though much resembling a Song Thrush, it is noticeably smaller in size, and duller and less upstanding in appearance, while at close quarters a clearly defined yellowish stripe may be seen over the eye, as well as the warm reddish patch below the wing, and beneath it when it is opened for flight, which gives it its popular name. It breeds abundantly during the late northern summer in Sweden, North Russia, and the more low-lying districts of Norway, building in trees and bushes (like the Thrush or Blackbird) where it can find them, or on banks and between stones, in the fashion of the Ring Ouzel, on the treeless northern wastes. Its eggs resemble the closely-spotted variety of the Blackbird's.

FIELDFARE.

(Turdus iliacus.)

Felfer, Felt.—The Fieldfare is another winter visitor from the North, and its flocks and parties

are more conspicuous to ear and eye than those of the Redwing, as they pass overhead with the note "chak-chak," or fly in alarm, with the same cry loudly uttered, from a thickly-berried hawthorn or holly-bush on some bright, hard winter's morning. It can be distinguished from the Missel Thrush, which has much the same habits in winter, by the much more distinct grey patch on the lower part of the back, and also by its cry. The Missel Thrush makes a sort of grinding, rattling screech, broken into irregular lengths, while the Fieldfare's "chak-chak-chak" is clearly divided into syllables. The Fieldfare breeds in much the same regions as the Redwing, but is more often found further to the southward in Germany, as well as penetrating into upland parts of Norway where the Redwing does not occur. It nests in the spruce and fir forests, often in colonies; but like the Redwing, if trees are missing, it makes itself at home among rocks and on banks. The eggs are very boldly blotched, resembling the Ring Ouzel's or the most unusual type of Blackbird's. It is extremely interesting, to those who know the Fieldfare and Redwing as winter birds in large roving flocks, to watch them picking about in the copses near the Norwegian houses in summer, just like their cousins the English Thrushes and Blackbirds at home.

RING OUZEL.

(Turdus torquatus.)

Ring Blackbird, Moor Blackbird.—Just as the Redwings and Fieldfares move south for the winter into the British islands, so the Ring Ouzel leaves our own moors and mountains and goes further southward still for the wintry half of the year. It is the moorland-loving bird of the family, and its summer haunts are the rough and hilly districts of Cornwall, Devon and Somerset, Wales and the Welsh border, and the Pennine range of Northern England, as well as most of Scotland and a large part of Ireland. It is to be seen fairly frequently in hilly districts of southern and eastern England when moving to and fro in spring and autumn, and a few pairs sometimes stay to nest on the Berkshire and Hampshire Downs, and in other counties not generally frequented by it. But it is a bird of the heather and the rocky dingles, in the main. The cock is black, with a broad white band across the breast, the hen dusky brown, with the white band less conspicuous; after the breeding season the feathers show a tinge of grey. The nest is like a Blackbird's in appearance, and is generally built upon some rocky ledge or bankside of the moor, often amongst heather, or

in the loose dry-stone walls ; sometimes it is in or under a stunted bush, and a favourite haunt of the bird's is in the rocky, bushy gullies which hold the moorland streams. The Ring Ouzel begins to nest in the latter half of April. Four is the general number of the eggs ; they are light green in ground colour, boldly spotted and speckled with reddish-brown. The song of the bird is a repetition of a few sweet calls, much like the Missel Thrush's in tone, but with less vigour and spirit. Though somewhat monotonous, when compared with many other songs, it has a wild and characteristic beauty when heard on the open moorland, where the wild cry of the Curlew and the voice of the stream in its rocky basin are perhaps the only other sounds to fill the air.

WHEATEAR.

(*Saxicola ænanthe.*)

Fallow-chat.—The Wheatear of the open downs and the Chiffchaff of the woodland thickets are the first to arrive of all spring birds, and of the two the Wheatear is perhaps the earliest. It is a bird that loves short turf and wide, open spaces, and it is still to be found in most unenclosed situations of this kind throughout our islands, from the sea-

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coast to the highest slopes of the mountains ; though where the grass on the mountain-side is long and tussocky, the Wheatear is seldom seen, its place being taken by the Meadow-pipit. A cock Wheatear is a very beautiful bird in its fresh spring plumage ; though it has no dazzling colours, its clear grey back, white breast and tail-coverts, and black eye-patch, wings, and tail make a fresh and beautiful contrast. Every bird, moreover, seems to have its peculiar stamp of personal character, and the Wheatear's is a sort of wholesome and sensible brightness which adds much to the attractiveness of its ways. It begins to build about the middle of April, and makes a loose nest of dry grass lined with rabbit's fur and hair in disused rabbit-earths, hollows under overhanging edges of turf, or under stones, chinks of rocks and dry-stone walls, and such similar situations. It displays something of the Robin's adaptability in choosing a site, sometimes nesting in old boots and kettles, and other such rejected odds-and-ends which it finds on bits of waste ground. Five or six, sometimes seven eggs are laid, of a beautiful light blue, considerably lighter than either the Hedge-Sparrow's, Whinchat's, or Redstart's, and of the same colour as a rather pale variety of the Starling's. In size they are also distinctly larger than those of the three birds first mentioned above. The cock has

a pleasant song, though not very striking or conspicuous. The alarm note, when the nesting-ground is trespassed upon, is an abrupt noise like striking a knife-blade on a pebble, accompanied by a jerk of the body and tail. The Wheatear is most familiar to the eye in flight, when the white tail-coverts show very clearly, as in the case of the Bullfinch, or the white-tailed rabbits with which the Wheatear consorts: the flight is straight and skimming, and the bird alights with peculiar suddenness, without any slackening or turning. The name "Wheatear" has nothing to do with ears of wheat, and is simply the slightly altered modern form of the early English or Anglo-Saxon name which meant "white-rump," which is one of the bird's local names at the present day. The enormous numbers of Wheatears which were formerly caught in a special and curious form of trap by shepherds of the Sussex Downs were mainly secured at the time of the southward migration of old birds and young in August.

WHINCHAT.

(*Pratincola rubetra*.)

Grasschat, Furzechat.—Like the Wheatear, but unlike the next species, the Whinchat is a summer

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visitor only, arriving in the great general contingent about the middle of April. It haunts rough, furzy commons, fields, and uplands, and is one of the birds which often find congenial quarters on the dry, half-overgrown slopes of a railway cutting or embankment. It is a handsome little bird, a trifle smaller than the Sparrow in size, rich, deep, mottled brown above, and warm buff on the breast and throat, with a bold, black patch on the cheek, and a white eye-stripe. When its own private territory is invaded it flits anxiously about, with a sharp, double note, from one watch-tower, or coign of vantage, to another, now perching on a jutting spray, now on a fence-rail, and often, in a very characteristic way, on some tall, dry dock-stem, or other branching plant, in the scrubby pastures it frequents. The nest is built in thick grass, furze, or scrub, on or very close to the ground, and is very difficult to find. Six eggs are usual ; they are deep greenish-blue, a good deal smaller than an ordinary Hedge-sparrow's, and a good deal greener and deeper in tint. Sometimes they are faintly freckled at the larger end with rusty red. In April and May the Whinchat has a very pleasing little song, sung both on the wing and when perching, but it is such an alert and anxious little bird when its nesting operations are forward that it is often difficult to hear anything of it but the clicking alarm-note.

STONECHAT.

(Pratincola rubicola.)

Stoneclink, Blackcap.—The Stonechat is another bird of furzy heaths and commons, but does not generally extend its range, as the Whinchat does, to the rough, grassy fields and banks. It is found, as a rule, on wastes and commons where there is a plentiful supply of heather, and fond though it is of furze-bushes, it seems rarely to haunt places where there is furze alone. As a species, it is with us all the year, though it shifts its quarters a good deal both within the limits of the country and across the sea. The cock is a very brightly and oddly-coloured little bird, and has to an even greater degree than the Whinchat the habit of posting himself (in a very upright position) on conspicuous jutting sprays, from which he flings himself singing into the air, to tumble in a light-headed kind of way down to another point of outlook. He has a bright reddish breast, with a conspicuous black patch on the throat and face, and between the two a broad white mark on each side of the neck, as well as another smaller one on each wing. The hen is so much duller in all her colours, though her general pattern is much the same, that her resemblance to him is more in her flight and habits than in her

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actual plumage. They begin to nest very early in the season, and have often eggs by the early days of April, though the second brood may be found as late as July. The nest is extremely well concealed in thick heather or close-growing furze, on or very close to the ground, and often at the end of a little run or tunnel. It is loosely built of soft dry grass and moss, and has generally some rabbit's fur in the lining. Six eggs are usually laid. They are of a curious dim bluish or greyish-green, not a true blue, like the Whinchat's or Redstart's, and more or less thickly dusted with fine, faint freckles of rusty red.

REDSTART.

(*Ruticilla phoenicurus.*)

Redtail, Firetail.—The Redstart is one of the most beautiful and graceful of all our summer birds, and is curiously local and fitful in its distribution about the country. It arrives about the middle of April, and chiefly haunts the sides of streams in moist and tree-fringed meadows, as well as cowyards, gardens, and other places where there is a good water-supply, and consequently much insect life. But it will often be common in one

such favourable locality, and hardly to be seen in another a few miles off which is apparently in every way as suitable. It has probably been nowhere commoner, for instance, of late years than in the Isis and Cherwell meadows round Oxford ; but it is quite likely to cease visiting the locality in any profusion just as unaccountably as it came, perhaps to colonise the water-meadows and willows of other streams in the Upper Thames valley, where it is now a very unfamiliar visitor. It nests in such holes as it finds about its haunts, either in walls or trees ; like the Pied Wagtail, it has no objection to the hole having a good wide mouth, and will cleverly insert its nest in some side crevice or pocket. The nest is rather flat and loose in build, but very softly made of such materials as moss and rootlets, and lined with cowhair and feathers, or a mixture of other such comfortable bird-bedding. The eggs, five or six as a rule, are a rather pale blue, darker than the Wheatear's, but lighter than an ordinary Hedge-sparrow's ; in size they are also a little smaller than a normal Hedge-sparrow's, and have sometimes a few rusty freckles. The situation of the nest makes it impossible to mistake the blue eggs for those of any other bird, except the Pied Flycatcher, and the two birds seldom haunt the same districts. The cock has a quiet but sweet little song, of the

kind which has to be learnt and listened for in the great spring chorus by the stream-sides, and is then always delightful to hear again year by year. The most characteristic markings of the cock bird are his black cheeks and throat, his white forehead, and above all his long, bright reddish-brown tail, which he flirts and quivers in a most characteristic fashion as he watches events and goes about his active business. Just as Wheatear means white-rump, so Redstart means red-tail, from the old English word. There is an equally handsome kindred species, the Black Redstart, which is as common and familiar round the Alpine villages and châteaux in Switzerland, as the Robin is about houses in England, and must be known to almost every visitor to that country who cares to study birds at all. For no evident reason, this fine black-breasted "Redtail" never comes to nest on this side of the North Sea, as his brother does. But he turns up sufficiently frequently enough in the southern and western counties in autumn, when he has lost his reckoning on migration between Northern and Southern Europe, to be always worth watching for at those seasons as a rare and interesting visitor.

ROBIN.

(*Erithacus rubecula.*)

Redbreast.—Everybody knows the Robin, but not everybody knows equally well that he is a near relative of the Thrushes, and an even nearer relative of the Nightingale. The relationship is most clearly shown by points of structure and plumage, which it needs some acquaintance with scientific ornithology to grasp in their right bearings ; but without going into the matter so deeply it is not difficult to see a strong family likeness in the large, shapely head and intelligent eye, as well as in the close similarity of the mottled yellow and brown plumage of the nestlings of all the group. The nestling plumage is always an important indication of family relationships, as it is believed to preserve the ancient colouring of the birds in days before their present differences were so clearly developed, and when many species which are now distinct were represented by a single common ancestor. The Robin is such a familiar friend of man that its human nickname, which was added at first in the same way as we often speak of a “Tom” Tit or a “Jenny” Wren, came almost entirely to supersede its proper name of Redbreast. Then when English colonists came to settle in

America, and later in Australia, the familiar name of Robin was bestowed on birds different in each case from our English species, but showing a likeness to it in their ruddy breasts, and, to some extent, in their habit of frequenting the neighbourhood of human dwellings. The Robin is a constant singer, almost all through the year. He stops singing with the completion of the nesting season and the extreme summer heat about the same time as the Song Thrush, in the early days of July; but he may be heard beginning again as soon as the first touch of autumnal coolness is felt in the more dewy mornings, often as early as the beginning of August, and from that time on he may be heard in mild weather all through the winter. The Robin's regular nesting-place is in a hole in a hedge-side, bank, or a wall, but the list is endless of the extraordinary situations chosen by this bird. Sometimes, like the Water-wagtail and a few other species, it will build its own nest inside the old or deserted nest of a Thrush or Blackbird, occasionally above the eggs of the former owners. The nest is, as a rule, somewhat loosely built of dry leaves (another point of likeness between the Robin and the Nightingale) and a little moss, and is lined chiefly with hair. Four to six or even seven eggs are laid, of a yellowish or brownish-white ground colour, much blurred and clouded with spots of

darker yellowish-brown. Before the fresh eggs are blown, they have usually a delicate pink flush from the yolk shining through the shell ; this is lost as they become hard-set, when, like all other eggs, they grow much more dull and opaque in colour. So far from the Robin being the pattern of the virtues which legend and tradition represent him to be, he is a regular bully among nearly all the smaller birds with which he generally comes into contact.

NIGHTINGALE.

(*Daulias lusciniæ*.)

By comparison with its widespread fame, the Nightingale is not a very familiar bird in the flesh ; it is a visitor to scarcely more than half the counties of England, out of the whole area of the British Islands, and even where it is common, it is very much more rarely seen than heard. It is a distinctly common bird, in its favourite haunts of green thickets and undergrowth, over most of the south-eastern part of England, being found in gradually diminishing numbers as far as the boundaries formed by Yorkshire, Shropshire, and the Severn Valley, and Devonshire. Beyond these limits it has appeared very rarely, though it has lately shown some signs of extending its range,

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unless, perhaps, its more frequent recognition is simply due to closer observation. The Nightingale appears in most localities by about the third week of April, though like most birds which are heard more easily than seen, in cold seasons it may be with us for some days before the weather encourages it to sing. Its song is always most impressive at night, and most of all so when it breaks upon our ear for the first time for many months out of the solitude of the midnight garden or thicket; but it is quite wrong to suppose that it sings only by night, and equally mistaken to think that it is the only nocturnal singer, though it is certainly the most conspicuous one. It sings for barely six weeks in all, being but seldom heard after the first week in June, by which time the young are hatched, and, by a strange contrast, the only note of the Nightingale (except for an equally inarticulate chirp, sometimes uttered on the same occasions) is the guttural and almost frog-like croak by which it expresses its uneasiness for its threatened nest or young. With a little stillness and caution it is not at all difficult to get a clear view of a singing Nightingale, as he often mounts to a conspicuous bough or spray in the upper part of the thicket. Though scarcely a richly coloured bird, he is none the less a handsome one, being warm brown on the upper parts, kindling into

russet about the tail, and clear grey beneath ; and his slightly larger size than most of the small birds of the wood (Robins, and Blackcaps, and so on—but he is of course much smaller than the Thrush) gives him a distinctive appearance, as well as his sprightly movements and large and intelligent-looking head and eye. As for the famous song, in spite of a few rather harsh notes, and the broken and fitful character which is its too frequent blemish, it is beyond all doubt the most splendid bird-music to be heard in England. There is no other song which in the least comes near its extraordinary force and fire, and by this unique quality it easily surpasses the three or four other kinds of bird-music (those of the Song Thrush, Blackcap, Garden Warbler, and Blackbird, say) which may be said to equal or even excel it in smoothness or sweetness of tone. The bird truly sings as if its very heart were bursting, and it seems no wonder that it often pauses, as though for an instant's breathing-space, after each fierce jet of song. And yet, at times, oftenest during the early hours of some peculiarly balmy and yet exhilarating night of May, it will pour forth an almost unbroken flood of music, usually in challenge or answer to one or more of its rivals singing at a greater distance ; for these birds have the limits of their respective kingdoms very clearly

defined, and sing defiance at one another without crossing their legitimate boundaries. There is one extraordinary low, deep note, sustained for several seconds at a time, which occurs in the middle of the song with the most amazing effect, appearing at first to be produced by some different bird altogether ; the Nightingale seems only to utter this when it is raised to the highest pitch of song, by fair spring weather and the keen voice of a rival. I have listened to many Nightingales every summer, but it is nine or ten years since continued residence in a Nightingale country last enabled me to hear this note. The birds generally begin to build early in May, though in a very early spring (that of 1893) I have known the nest finished and an egg laid by the end of April. The nest is loosely built of dry leaves, generally oak-leaves, scantily lined with horse-hair, and is generally very well concealed on or close to the ground among brambles, bushes, or nettles and other herbage. The four or five eggs are of a deep coppery or greenish-brown, without any spots or markings, except when very occasionally they show dense coffee-coloured mottlings on a slightly paler ground of tawny yellowish-brown. In this variety an approximation is seen to the darkest variety of the Robin's egg. Occasionally Nightingales' eggs are found of a pale sea-green colour ; but like the

abnormal pale blue or greenish-blue eggs occasionally laid by birds of many species, these are merely the result of weakness or disease, as is generally shown in addition by the extreme thinness of their shell.

WHITETHROAT.

(*Sylvia cinerea*.)

Nettle-creeper, Haychat.—The Whitethroat is one of the commonest of the summer birds of passage in most country districts, arriving about the third week in April, and making himself a rather conspicuous feature of the overgrown hedgesides and bramble-patches for several weeks thereafter by his chattering little rigmarole of a song, half tuneful and half discordant, and his frequent manner of beginning it on the top or the side of the hedge, and slipping out of sight to finish it before he is half-way through. He is greyish-brown above and pale grey beneath; as his name indicates, the feathers about the throat are paler still, though they are scarcely pure white, and when he sings the expansion of the muscles gives them a peculiar bristling appearance. Until his song is learnt it is this pale and bristly little throat of his while singing which gives the best point by

which to recognise him, though his common country name of "Nettle-creeper" is also very expressive of his habits. Early in May the White-throat builds a compact but rather flimsy nest of dry goose-grass and other stems, wound round and round and lined with horse-hair, low down in the thick of the brambles, nettles, and other rank verdure of his haunts. The name of Haychat, which is applied in some counties to this and the next three species indiscriminately, is derived from the materials and appearance of the nest. It is seldom more than three feet from the ground, and often close upon it. Four to six eggs are laid, with a pale hay or straw-coloured ground, freely marked with dark and light-grey spots and freckles of a rather peculiar appearance, much as if they had been put on with a blacklead pencil and half rubbed out again. The colouring of the eggs is often remarkably close to that of the dry stems and black horse-hair of the nest; and most of them have, when fresh, an oddly transparent and ghost-like sort of appearance, extremely like that of a live shrimp on the sandy floor of a pool. The nest does not seem a particularly hard one to find, until the dying down of the rank herbage in winter reveals dozens of hitherto unsuspected White-throats' nests in every wayside hedge and thicket.

LESSER WHITETHROAT.

(*Sylvia curruca.*)

Haychat.—The Lesser Whitethroat is not such a common bird as its larger namesake, and is a good deal less conspicuous both to ear and eye. But it is well distributed among green thickets and brambly hedge-rows in most southern parts of the country. It is a shy and graceful little creature, while there is a distinct touch of the self-assertive demeanour of the Sparrow about the voice and behaviour of the Whitethroat, in spite of his half-skulking ways. The Lesser White-throat is a good deal slenderer in form, while its upper parts are darker and more slatey, and the underparts more silvery in colour; it has also a much more quiet and unobtrusive song. It comes to us towards the end of April, and early in May builds a remarkably delicate little egg-cup of a nest, considerably higher above the ground, as a rule, than the common Whitethroat's, often six or seven feet from the earth. It is made like the Whitethroat's, of dry, twined stems, but fine in quality, and is more scantily lined with horse-hair; the whole structure is so sparsely put together that the eggs can sometimes be seen through the bottom of the nest, and yet it is extremely durable and

firm, as may often be observed in the winter hedgerows, when the mossy nests of the Hedge-Sparrow and Greenfinch are mere sodden wrecks, while the Lesser Whitethroat's, though filled with dry leaves and rubbish, is still as sound as a bell. Five is the full number of the eggs, which are scarcely more than half the size of the White-throat's. They are a more or less tinted or clouded greenish-white in colour, freely speckled and spotted towards the larger end with several shades of olive and walnut-brown and paler ashy-grey. They vary a good deal in the density of their markings as well as in shape, some being very slender and pointed and others much rounder, but allowing for these differences there is an easily recognisable likeness about all of them, in their mixture of grey and clear brown spots. From Gilbert White's description it seems certain that the Lesser Whitethroat was the "rare, and I think new, little bird," which, he says, "frequents my garden," and, among other habits, "runs up the stems of the crown imperials, and, putting its head into the bells of those flowers, sips the liquor which stands in the nectarium of each petal." Gilbert White's observation was very rarely at fault; but it seems more likely that the bird was searching the hanging blossoms for the small insects often to be found in the throats of flowers

than for the nectar, as is probably the case, indeed, with most of those habitual hoverers at blossoms, the Humming Birds. But it would be interesting to know if those people who still keep these handsome old-fashioned flowers in their gardens have ever seen the Lesser Whitethroats of to-day hunting for their food in the same curious manner.

BLACKCAP.

(*Sylvia atricapilla*.)

Haychat, Blackcap Warbler.—The Blackcap and the next species described, the Garden Warbler, are larger relatives of the two preceding species, and in many points display a close resemblance. Both are birds of the dense green summer thickets, and both are heard far more often than seen, for they are shy and retiring in habit, while as songsters they are both in the first rank. Their songs are much alike in general character, possessing much of the Blackbird's mellowness with a great additional vivacity and sprightliness, and a sustained and continuous flow which is their most characteristic feature among the many bird-voices of a leafy copse in May or June. But the Blackcap is much the better performer of the two; some individuals are far finer singers, in the range and compass of their notes, than others, but all of

them have high notes which the Garden Warbler has not, and this gives a much greater variety and richness to their song. The Garden Warbler's song is a sweet, swift warble, lower in tone than most of the other songs of the wood, and remarkable for the length to which it is poured forth without a pause. The Blackcap's is generally more broken into lengths, except in the case of the best performers ; but whether the performer be bad or good, the high notes give a range and variety to the Blackcap's song which the Garden Warbler's does not possess. They are often near enough neighbours to make it not very difficult to hear and compare both songs without having far to search. The Garden Warbler, however, is much the more local species of the two, though where it is present it often outnumbered the Blackcap considerably. The Blackcap's plumage is ashy-grey with a brownish tinge above, and clear pale grey beneath, while the cock has the upper half of the head jet-black and the hen reddish-brown. It arrives about the middle of April, but a few individuals sometimes stay all the winter in sheltered parts of the country. It builds a very frail and delicate nest of dry grass-like stems bound with wool or cobweb, and lined with horse-hair, hanging it among brambles, undergrowth, or the smaller branches of trees and garden shrubs at

an average height of three or four feet ; higher, that is (as a general rule), than the Whitethroat's and also the Garden Warbler's, but not so high as the Lesser Whitethroat's, which it much resembles in its extreme slightness. Both nest and eggs are often so much like those of the Garden Warbler that the only sure way of identifying them is to get a clear view of one of the parent birds, for the Garden Warbler pair have no such black or reddish-brown cap as plainly distinguishes this species. A Blackcap's nest is generally higher above the ground than a Garden Warbler's, and is often also rather less bulky, the Garden Warbler's inclining more to the appearance of the common Whitethroat's ; but neither distinction can be relied upon with safety, and there is the same kind of uncertainty about the colour and markings of the eggs. A typical Blackcap's egg is greenish or yellowish-white in ground colour, thickly mottled over with flaky spots of clear, darker brown ; the shell is highly polished, and there is a scarcer and beautiful variety in which both ground and markings are flushed with a tinge of red. A typical Garden Warbler's egg has a lighter and less concealed ground colour, of a much more stained and muddy appearance, and with larger, darker, "messier"-looking mottlings of greenish-brown and brown ; often, too, with one or two blurred

conspicuous scribblings approaching the appearance of those on a Yellow-hammer's egg. The Blackcap's and Garden Warbler's eggs illustrated belong to these two well-defined and clearly contrasted types ; but the types shade into one another in such a confused and uncertain way, in any dozen eggs belonging to both species, that some Garden-Warblers' eggs seem more like Blackcaps', and some Blackcaps' more like Garden Warblers'. Consequently, to see the bird is the only safe way of distinguishing them. The cock Blackcap takes his turn at sitting on the eggs. This bird will sometimes play the curious trick of dropping from the nest and shuffling away from it as though with a broken wing ; a device which is better known among partridges and some species of ducks, though it also occurs in the case of some other small birds.

GARDEN WARBLER.

(*Sylvia hortensis*.)

Haychat, Pettychaps.—The Garden Warbler has just been described fairly fully under the heading of the Blackcap, and for our present purposes there is not much to add. It does not make its appearance quite so early as its near relative, as might indeed be expected from the fact that the Black-

cap is very nearly a resident species in England, some individuals remaining all the winter, while the Garden Warbler retreats further south. It is of the same size and general appearance as the Blackcap, but its upper parts are greenish-brown, rather than grey with a brownish tinge, and underneath it is also of a less clear shade of grey, while it altogether lacks the conspicuous black or red skull-cap. For a description of its nest and eggs, see under the preceding heading. It should, perhaps, be mentioned that the Garden Warbler's and Blackcap's eggs, together with the Robin's and Spotted Flycatcher's, are more subject to fading than those of almost any other species, and are sometimes hardly to be recognised if they have been blown for even a few weeks' time.

DARTFORD WARBLER.

(*Sylvia undata.*)

Furzy commons in the south of England are the haunts of this scarce and retiring little bird, which is, however, probably commoner in many districts than it is believed to be, owing to its making itself but little conspicuous either to eye or ear. It owes its English name to the fact that it was first discovered as a species near Dartford, in Kent, in the

year 1773; but like many such names which link a species to one particular locality from the accident of its first discovery, it is not a good one, for the bird is no commoner in that part of Kent than in many other districts, being most plentiful, indeed, on suitable commons in Sussex, Hampshire, and Surrey. The most conspicuous instance of such inappropriate naming is the "Camberwell Beauty" butterfly, Camberwell having long been a very poor place for butterflies of any kind, since it was swallowed up in London. The Dartford Warbler is well worth looking for with care on all suitable wastes and commons in the parts of England likely to be haunted by it, for it is an odd and seldom-seen little creature. It is a very dark grey above, and a dark reddish-brown underneath, and appears quite black and unlike any other little bird as it flits about the furze-sprays, or creeps through the thicker bushes. It has also unusually short, round wings, and a disproportionately long tail, which it spreads out in some of its attitudes much like a miniature Cuckoo, and flirts in a graceful manner high above its back; it utters a few sharp notes, which scarcely amount to a song. The nest is built towards the end of April in the thick of a furze-bush, of various dry, pliable stems, and very much resembles the Whitethroat's. There is a second brood about June. Four or five

eggs are laid, generally of a greenish ground colour like a pale variety of the Whitethroat's, but sometimes nearly white, and spotted and freckled with various blurred shades of grey-black, grey, or reddish-brown. The greener varieties much resemble the Whitethroat's egg, but the ground is paler and the markings more distinct.

GOLDEN-CRESTED WREN.

(*Regulus cristatus.*)

Goldcrest.—This is the smallest of British birds, but far from the most delicate in constitution, and is often plentiful in winter in larch and fir woods, as well as among yews and various trees of the evergreen cone-bearing tribe in our gardens and shrubberies, and sometimes among furze-bushes on commons. It is as active and reckless as a Tit, hunting for its minute food among the twigs with a sharp needle-like cry, so shrill and fine that, like the voice of the bat or the chirping of grasshoppers, some ears are unable to detect it. It has also a delicate and often-repeated little song, which may be heard very early in the spring. Its general colour is greenish-brown above and pale greenish-yellow beneath. The celebrated crest is not a regular tuft or plume, though the feathers of

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the head can be slightly bristled or erected, but a bright patch or strip between two darker, narrow bands, extending from near the bill back over the crown of the head. This strip is golden yellow in front, and bright orange further back. In the hen bird it is a paler and fainter yellow altogether. There are also some noticeable markings on the wing, clearly contrasted in black, brown, and white. The Goldcrest often begins to build in March, slinging a very delicate cup or basket of moss by its upper edges to the twigs and small boughs of one of the evergreen trees which it haunts. It is round in shape, and nearly shut in above by the meeting edges. A few fragments of wool or spider's webs are used to bind it to its supports, and there is a scanty lining of feathers. Seven or eight eggs are usually laid, yellowish-white in colour, and more or less thickly clouded and freckled with reddish and yellowish-brown. The Firecrest, which is sometimes confused with the Goldcrest, is a different bird, though closely akin to it, and is only a scarce winter visitor.

CHIFF-CHAFF.

(*Phylloscopus rufus*.)

Whitethroat, Haybird, Ovenbird.—This species, and the Willow and Wood Wrens or Warblers,

May 15, 1911. ♂ in full song, Wartham Garden, Oxford.

form another well-defined family group among British copse-birds, like the Blackcap and White-throat quartette, and the Water Warblers to which we shall come presently. Our British species are only a few members of a tribe very numerous on the Continent, and well described in their characteristic habits by the generic name *Phylloscopus* or "Leaf-looker," which accurately hits off the way in which this family of birds spends most of its time creeping and fluttering about among the foliage of trees and bushes in search of its insect food. The Chiff-chaff returns to the copses almost as early as the Wheatear to the breezy downs, and it may almost always be first seen, or far more frequently heard, before the end of March. The double note which gives the Chiff-chaff its name is henceforward one of the most constant voices of the woods and thickets till the great bird-silence comes in July, and from early in August till departure early in October it is often picked up again once more in a fainter echo of the indefatigable spring song. I have heard the Chiff-chaffs singing in September in the Bernese Oberland, at the topmost limit of the sycamores and other deciduous trees, and just below the unmixed pine-belts, with a vigour and frequency, especially at early dawn, which I think is unknown in England at this season, and almost equalled

their regular spring song. In spite of its sweetness of tone, this indefatigable "tick-tack, tick-tack" of the Chiff-chaffs might be called monotonous on its mere musical merits. But it is so welcome when it first falls on the ear in the end of March, as the signal that all the birds of summer are on their way to England, and so bound up with every feature of advancing spring in the woodlands, that no bird's song comes to be more grateful to the ear. The Chiff-chaff spends some time in settling down in its haunts before nesting, and it is after the middle of April before the thickening of the undergrowth generally gives it a fair opportunity to build in sufficient concealment. Sometimes, however, if everything else is well forward, it does not wait for the new foliage to come, and builds among thick dry stems and brambles, or among the lower branches of a holly, where it sweeps the ground and is half choked in a litter of dry leaves. The nest is large for the bird, domed like the Wren's, and of similar or larger size, though with a much larger entrance. Its likeness to an old-fashioned oven in shape has given this bird and the Willow Wren one of their local names. It is built mainly of dead leaves and moss, with some dry stems and grass, and abundantly lined with feathers. It is generally a few inches above the ground, in brambles and mixed herbage

or barely touching it, this being one point of difference from the Willow Wren's, which is often hard to distinguish from it. The eggs are usually six in number, white, somewhat sparingly marked about the larger end with dark purplish-brown spots and speckles. Sometimes the spots are almost black, sometimes chocolate-brown, and sometimes even crimson. The Chiff-chaff is greyish-brown above, with a tinge of olive-green upon the back, and dull white beneath. In appearance, as well as in its nesting habits and the colour of its eggs, it closely resembles the Willow Wren. The Willow Wren's song, however, is quite different.

WILLOW WREN.

(*Phylloscopus trochilus.*)

Willow Warbler, Whitethroat, Haybird, Ovenbird.—The Willow Wren arrives with us almost as early as the Chiff-chaff, and is equally common in almost all parts of the country. It frequents the same leafy places, and extends its range to higher ground than the other species, being often common in the strips of birch, alder, and other low trees and bushes which cling to the stream-sides and other sheltered places on the lower slopes of mountains and high moorlands. Its song is almost as cease-

less up to midsummer as the Chiff-chaff's. It is a very sweet cadence of about a dozen notes, irregularly dropping down the scale, and is very familiar among the budding woodlands of April and early May, especially among the new verdure of the larch-woods. When the famous American naturalist Burroughs spent some weeks in this country studying the songs of English birds, he considered the Willow Wren's song to be one of the sweetest we possess, ranking its quiet and unobtrusive beauty above the music of many better-known songsters. Neither this bird nor the next is really any near relation of the Wren's, and they do not even look as if they were, except so far as one small bird is necessarily rather like another. It would doubtless be more accurate and scientific always to use their book-names of Willow Warbler and Wood Warbler, but most people who are fond of birds in their natural haunts dislike the museum atmosphere of such new and rather artificial titles in English, especially when there is always the scientific Latin name for the necessary purposes of classification. There is surely not much harm in speaking of the Willow Wren by his most familiar name, so long as we know enough of his ways to understand that the common Wren and he are thoroughly different birds. If people, on the other hand, do not care to know anything about a bird

at all, it cannot much matter what they call it. A different and more confusing habit is the way which country people in some parts have of calling both the Willow Wren and the Chiff-chaff "White-throats," the real Whitethroat being known as the "Nettle-creeper." The Willow Wren is very like the Chiff-chaff to the eye, but can be distinguished by being greener above and yellower beneath, as compared with the more grey-brown back and under-parts of dull greyish-white of the Chiff-chaff. It is also a trifle larger, but scarcely enough so to make the difference of practical aid in distinguishing a live specimen. The young ones are rather conspicuous little creatures, with greenish backs and sulphur-yellow breasts; they often turn up in strong family parties to feed upon the ripe currants, and can slip through the mesh of any ordinary net with ease. For the greater part of their lives, however, they are most valuable insect-eaters. The nest is also very like the Chiff-chaff's, domed, with a large hole in the side, and built of dried grass, dead leaves, and moss. Generally, though not sufficiently regularly to make an invariable distinction, it is set more closely upon the ground than the Chiff-chaff's, and is consequently harder to find among the undergrowth and herbage. Sometimes it is a most cunningly concealed cell in the thick moss of a hedge-bank or

the uneven floor of a wood. It is thickly lined with feathers, like the Chiff-chaff's. The eggs, of which there are generally six, are white, spotted and speckled with light or deep red. They are often very like paler-spotted varieties of the Chiff-chaff's, but their spots are always of a distinct geranium-red, never crimson, or crushed blackberry colour, or reddish-chocolate, like the varieties of the Chiff-chaff's which they most resemble. They are even more like several species of Tits' eggs, but are rounder in shape, and of a creamier white in ground colour.

WOOD WREN.

(*Phylloscopus sibilatrix.*)

Wood Warbler, Ovenbird.—The Wood Wren is a much more local bird than either of the two last species, being generally found in tall woods of beeches and oaks, in the tops of which it spends the greater part of its time, frequently uttering its curious shivering song. It is not only local but fitful in its appearance, being often common in a tract of woodland for one or more seasons and then completely vanishing. It is a rather larger bird than either of its two relations, of much the same greenish tinge as the Willow Wren, but with a sulphur stripe over the eye and a sulphur throat

and breast. But it chiefly makes itself known by its song ; this is not very musical, and consists of two distinct halves, five or six sharp, twittering notes being followed by a sort of prolonged shivering trill. The nest is built early in May, the Wood Wren arriving rather later than the other two kindred species. It is placed on the floor of a wood, among the dead leaves, brambles, and more or less scanty green stuff, and is very closely concealed, often being a cell half underground, like some nests of the Willow Wren. It is domed, and made of dry grass, leaves and moss, but unlike the nests of the two other birds it is lined with soft grass and never with feathers. The eggs are white, spotted, more thickly than those of the other species, with chocolate brown and fainter flakes of grey. It was first distinguished as a species by Gilbert White ; the tall beech-woods which cover large parts of the magnificent hills near Selborne are exactly suited to its habits.

REED WARBLER.

(*Acrocephalus streperus.*)

Reed Wren.—This bird and the two next in order are the British representatives of another extensive European group, for which a good

English name is the Water Warblers, though the Latin family name draws attention to the slender and pointed shape of their heads. The Reed Warbler is a rather local bird, for it requires not only abundance of water, but a particular sort of reed to nest in, and this reed is not to be found by every likely-looking stream. It is the tall slender species, with a round, cane-like stem, and a grey, plummy reed-head, like a darker miniature copy of the garden pampas-grass. Where beds of this reed are common, one may be fairly sure of finding the Reed Warbler, often in strong colonies; but it is not, as a rule, much use to look for him elsewhere, though in parts of the Thames Valley, and perhaps in other such localities, the abundance of all his other requisites, and the comparative scarcity of his particular reed, has led him to nest occasionally in willows and other stream-side bushes, as well as in lilac-trees in gardens. This is a late bird to arrive, and it usually waits till nearly the end of May before nesting, for the sheltering vegetation of summer comes more slowly by the sides of the streams and pools than it does in the woods and hedgerows. The nest is one of the most ingenious and remarkable built by any British bird. It is slung above the water in the thick of the reeds, between three or four of their stems, which pass right through

its sides, and has an extremely deep cup, so that the nest can be rocked to and fro by the reeds as they bend in the wind without the eggs being upset. The grey plumes of last year's reeds, and the cottony catkins of poplars and willows, supply most of the material, but the bird also makes use of moss, wool, and occasionally bits of thread or cotton, while there is often some horse-hair in the lining. The eggs are greenish-white in ground colour, thickly spotted and mottled with dark green, greenish-brown, and ash grey. Five is the usual number. This is a very common nest in which to find the Cuckoo's egg or young. The Reed Warbler is another bird which it is much harder to see than to hear. It often takes a good deal of watching to get more than a succession of short and fitful glimpses of these slender and lissom little birds, reddish-brown above and creamy white below, as they climb up the reed stems, and slip about in the dense groves of slender swaying columns, where the grey nests stand transfixed above the water. But the silvery, babbling song of the Reed Warblers will flow from the reed-bed almost without ceasing, and often far into the night. It has a strong family resemblance to the song of the common Sedge Warbler, but is a great deal sweeter in tone, and has not such strong and sudden contrasts of harsh and musical notes.

MARSH WARBLER.

(Acrocephalus palustris.)

The Marsh Warbler is a bird which occupies a peculiarly interesting position in British ornithology, as it is only of late years that its position as a British-breeding species has been established beyond all question. Even now the localities in which it has been found are so few, and at the same time there seems so little reason why it should not be a summer visitor to many others, that it probably still awaits discovery in a number of suitable spots in which it has never yet been recorded, and it is possible for anyone who watches and searches for birds to find the Marsh Warbler for himself and add to the universal stock of knowledge about this species. The difference in the plumage of the Marsh and Reed Warblers is so slight as hardly to afford any help in the search, and it does not even seem that the best authorities are exactly agreed about the points of difference. The localities haunted by the scarcer species are the moist overgrown withy-beds beloved by the Sedge Warbler, rather than the Reed Warbler's watery cane-thickets; but the osier-beds and reed-beds often adjoin one another so closely that the Reed and Marsh Warblers may often be

seen and heard at the same time, while the resemblance between the Marsh and Sedge Warblers is also quite close enough to make them very difficult for the eye to distinguish as they slip about in the thick midsummer herbage. The really conspicuous points of distinction in the Marsh Warbler are its song, and still more its nest and eggs. Its song strikes the ear as clearly belonging to the same family as the Reed Warbler's and Sedge Warbler's, but it is much more sweet and melodious than either, only very rarely falling into the harsh, grating notes which are frequent in the Reed Warbler's song, and much more conspicuous still in the Sedge Warbler's. It is also a remarkable mimic of the songs of other birds. As for the nest and eggs, they are quite unlike those of any other British species. The nest is built mainly of dry, bent stems and grasses, with a little moss or wool, and lined with horsehair, being not very unlike a rather shapeless and untidy Whitethroat's. But its peculiarity is the way in which it is hung by its sides and edges to the stems of the meadow-sweet, willow-saplings, and other marsh vegetation in a pendent, basket-like manner, which is half-way between the ordinary method by which most birds support their nests *upon* such green undergrowth, and the Reed Warbler's peculiarly neat and remarkable way of slinging its nest to the upright reeds.

The bird seems particularly fond of meadow-sweet, hanging its nest in the thick of its rank, moist foliage in the shade of the willows at a height of two or three feet from the ground. No other bird builds in the same way among the stems and leaves of such soft and flimsy herbage, away (in most cases) from all other support, and only this peculiar method of hanging the nest from the stems could give sufficient support for safety. Four or five eggs are laid, larger than the Sedge or Reed Warbler's, and nearly as large as a fair-sized Hedge-sparrow's. They are greenish-white or pure pale green in ground colour, of which plenty is visible, and spotted in a free and open manner with greenish-brown and grey, as well as sprinkled here and there with smaller, darker dots and flecks both on the ground colour itself and upon the surface of the larger spots. They are very handsome eggs, and like no others found in England, though much resembling the Great Reed Warbler's, of continental Europe. Like the Reed Warbler, this bird arrives late in the spring, and is a late nester, the middle or end of June being the usual time for the eggs to be laid. Its known occurrences seem mainly to lie along a belt of country extending from the neighbourhood of Taunton in Somersetshire, by Bristol, Bath, and Stroud in Somerset and Gloucestershire, to Oxfordshire and the neighbour-

hood of Rugby in Warwickshire, but there is no reason to suppose that it does not yearly frequent suitable river-sides and osier-beds in many other parts of the country. No one has done so much to throw light upon the Marsh Warbler's occurrence and habits in England as Mr. W. Warde Fowler, in whose now celebrated osier-bed in Oxfordshire I was kindly permitted to make the acquaintance of this very interesting species in the summers of 1898 and 1900.

SEDGE WARBLER.

(*Acrocephalus phragmitis*.)

Sedge-bird.—The Sedge Warbler is one of the commonest birds of all overgrown streamsides, moist, marshy copses and osier-beds, and every place where it can find its two chief requisites of water and abundant undergrowth. It comes to this country in the great inrush of summer birds which arrives about the middle of April, after the first pioneers, such as the Willow Wren and Chiffchaff, are already settled in their haunts, and from that time onwards, even till the beginning of autumn, it sings more persistently than perhaps any other British bird. Its song is a hurried, chattering warble, and it is easy to learn to distinguish it by the peculiar mixture of sweet and

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harsh notes, by the length to which it is often kept up without a break, and the extreme force and earnestness, for such a small bird, with which it is delivered. Most country people know the way in which, if the Sedge Warbler is silent at the moment, it will spring into song like an alarm-clock if man or beast disturbs it by pushing into its thickets, or a stick or stone is flung into the undergrowth. It is often heard singing at night, and is therefore one of the birds which are often mistaken for the Nightingale, though the Nightingale stops singing altogether many weeks before the Sedge Warbler does. Though it is much more often heard than seen, it is not difficult to get a glimpse of the Sedge Warbler among the thickets and willows which it haunts. An active and vigorous little bird in all its movements, it is coloured whitish-yellow beneath and darker reddish-brown above, and at close quarters it will be recognised by the yellow stripe over the eye and the rounded end to its tail. It begins to nest rather late, generally after the middle of May, for it waits until the streamside herbage has grown high enough to give it proper cover. Sometimes it builds in a mass of dry down-beaten sedges, as its name seems particularly to indicate, but much more often in the thick of the growing bushes and herbage, rarely more than four feet from the

ground, and sometimes actually touching it. The nest is a particularly compact and firm one, with a broad rim and a small deep cup, and is built of the slender stems and mosses which are naturally found in such a situation ; it is often lined with the cottony catkins of poplars and willows. When there is little cover by a stream the nest may sometimes be found in an overgrown hedge on the slope above, perhaps a couple of fields away, but rarely further than this from the water. Five is the usual number of the eggs, six not uncommon ; they are generally easy to recognise, being thickly mottled all over with fine, flaky markings of reddish or yellowish-brown, on a paler or biscuit-coloured ground. Very often they have the addition of a bold dark scribbling or two, after the fashion of the Yellow-hammer's egg. Especially in cold, wet years the Sedge Warbler is one of the birds which are particularly liable to lay eggs with imperfect markings ; in this case the mottlings may be much paler, or almost absent, so that the egg is at first sight difficult to identify, and may be mistaken for a Whitethroat's. Though its song is far inferior to the Nightingale's in everything but fluency, it gives almost as much pleasure when heard in the hush of some dark July night, at a time when most song-birds are silent even by day, and summer is already waning.

GRASSHOPPER WARBLER.

(Locustella naevia.)

Reel-bird.—The Grasshopper Warbler is the chief of the numerous company of birds which are much heard and little seen. Probably no bird shows itself so seldom among the deep grass, brambles, and green luxuriant undergrowth of its chosen haunts, while in localities where it is present few notes are more likely to excite the curiosity of the hearer than its long-continued, machine-like whirring, which is especially conspicuous after sunset, when most other birds are silent. The resemblance of this noise to the chirping of a grasshopper has of course given the bird its name; but it is more rapid and continuous, while it lasts, than the sound usually made by grasshoppers and crickets, though more musical and bird-like than the winding of the fisherman's reel, which is often heard at the same time with it in the same streamside meadows, when the trout are rising well on a warm, still evening about midsummer. The bird is found on commons and hilly ground, as well as in the fringes of the low-lying hayfields; but I have nowhere heard it reeling away in such numbers on a fine June evening as in the moist green meadows of the Dutch island of Walcheren. It is a long, lithe

little bird, greenish-brown, with darker streaks above, and pale brown beneath, a little dusker about the throat and breast ; by close watching it may be seen jerking along, and often running almost like a mouse, among the dense herbage which it haunts, and occasionally rising to some more or less exposed spray to emit its curious, long-drawn song. It arrives towards the end of April, and nests late in May, and often later still. The nest is built in the thick of the long, tangled grass and tussocks, frequently at the end of a lengthy run or tunnel, and is extremely hard to come upon. Six eggs are usual ; they are pale, pinkish-white, thickly freckled with deep red-brown, the markings being often densest in a belt round the larger end.

HEDGE-SPARROW.

(*Accentor modularis.*)

Dunnock, Shufflewing, Hedge Accentor.—The Hedge-sparrow is one of the most familiar of all our British birds, with something about his quiet, retiring manners as he haunts the neighbourhood of our homes which makes him the very opposite of the pushing and self-assertive House-sparrow. He is, of course, no near relation of the Sparrow

proper at all, having gained the name from the general similarity of his size and plumage, and his similar liking for the haunts of man. The name of Hedge Accentor has accordingly been given him by some scientific people, as his nearest relative is the Alpine Accentor, a bird which has its headquarters in the Alps and other Central European mountains, and only very rarely visits this country. But the name does not seem likely to become popular, though it is now a good many years old, and this can hardly be regretted. Though it is not a brightly-coloured little bird, there is a great deal of quiet beauty about the pencilled greys and browns of the Hedge-sparrow's plumage. Its sweet but rather weak little song, which resembles the Robin's in much the same way as moonlight imitates sunlight, is also a well-known and welcome feature of the dank and leafless February days, when we first begin to hear it in the lanes and in our gardens. While the days are still shortening, too, its curious, shrill piping as it uneasily prepares to go to roost in the gathering winter twilight, is a feature which arrests the attention. It is one of the half-dozen earliest birds to nest, the eggs being often laid before the end of March. The nest is fairly well concealed among the stumps and thorns of a hedgerow or thicket, in an evergreen garden shrub, in a pile of sticks, or on an ivy-covered trunk

or wall. It is substantially built, chiefly of moss, with dry twigs, especially elm-twigs, as an outside stiffening, and lined with wool and hair. The four or five eggs are of a very beautiful blue, darker than most other blue eggs, and with less of a tinge of green. Few of our birds wander less from their haunts at the different seasons of the year ; this may be partly due to the weakness of the Hedge-sparrow's flight, though weak flight by no means always prevents great journeys, as we see in the case of the Chiff-chaff, Sedge Warbler, and many such small birds, as well as the larger Landrail, which winter hundreds or even thousands of miles away. The local name of "Shufflewing" draws attention to the Hedge-sparrow's odd habit of quivering and fretting its half-open wings as it hops about the margins of the hedges.

DIPPER.

(*Cinclus aquaticus*.)

Water Ouzel, Brook Ouzel, Water Crow.—The Dipper is the bird which is more characteristic than any other of the rocky, tumbling streams of the hilly countries of the North and West, and it would seem almost as out of place by a brook in the level meadows of Hampshire or Suffolk as a

mountain Ptarmigan in an osier bed. It has also proved a regular puzzle to classify; in some respects it shows a resemblance to the Thrush tribe, while in its shape and attitudes, as well as in the build of its nest, it is amazingly like a gigantic Wren, with the habits of a Newfoundland dog. But science has in later years decided that it has no close connection either with the Wren or the Thrush tribe, and has given it a separate family position of its own among British birds. Rather smaller than a Thrush in size, with upper parts of dusky grey and brown, pure white breast, and less conspicuous chestnut and black on the belly, it is a bird that cannot be missed upon the moorland streams, as it perches, in its cock-tailed, Wren-like way, on the spray-dashed boulders, or whizzes past with direct, Kingfisher-like flight to another post of vantage beside the water. It is also extremely active under water, using both legs and wings to help itself along in pursuit of its food, which consists of various forms of water-insects and small molluscs. It has a bad reputation as a devourer of trout and salmon spawn, but it is very doubtful whether this is well-deserved, on the whole, or not, for a part of its diet consists of the very creatures by which the spawn is destroyed. Very early in the season, often about the beginning of March, it makes a large round nest of moss, as big or bigger

than a man's head, in some hole or cranny of the rocks and boulders of the stream, or the stones of a bridge, mill-dam, or neighbouring wall, and sometimes actually behind the curtain of a falling cascade. Often the nest is so like the mossy surface of the surrounding stones that it is very hard to detect, and it is often hidden deep among the crevices of a heap of boulders; sometimes, however, when built beneath a bridge, on the lower flange of an iron girder, or some similar situation, it is as conspicuous from below as a football placed on a shelf. The hole is low down at one side, and the nest is generally lined with dry leaves. Five or six eggs are laid, somewhat smaller than a Starling's, and pure white. The song may be heard in autumn, and sometimes in winter, while it begins anew very early in the spring, when the birds begin to think of nesting. A good instance of the difficulty which is often found in deciding what is a separate species, as distinct from a mere variety or local form, is supplied by the so-called Black-bellied Dipper (*Cinclus melanogaster*), which takes the place of our particular bird in Norway, Sweden, and North Russia, and sometimes wanders to this country. It is a matter of scientific dispute, as in many similar cases, whether it should really be regarded as a distinct species or not, some ornithologists wishing to give a separate specific standpoint

to all such well-established variations, and others preferring to keep the name of species for cases where the difference is more thoroughly marked. All species, at some time or other, have grown out of slight variations, and it is merely a question of where best to draw the line. In the present case, at any rate, the Dippers of different parts of Europe blend from one type or variety into another with so little trace of a real break that it seems best to regard them as a single species, and not to multiply names unnecessarily. The typical Black-bellied Dipper differs from the typical English one only in having less chestnut and more black upon its under parts; and even in England the Dippers in the high mountains are darker than those in the lower hills, so that we see the intermediate stages of transition displayed which join the two forms into one.

BEARDED TITMOUSE.

(*Panurus biarmicus*.)

Reed Pheasant, Bearded Reedling.—This striking bird is an inhabitant of mere and fen countries, and has suffered so much by the draining of such tracts in many counties of England where it once bred that it has come very near extinction. In the last few years, however, the Wild Birds' Pro-

tection Act has come to its rescue in its last stronghold, the Norfolk Broad country, and it is now increasing there in numbers again and even seems to be making efforts—probably doomed to failure—to colonise suitable localities in other parts of England. In the reed beds of the Broads it may be hoped that it will long survive. It is a very handsome bird, warm brown, in several shades, above, and greyish-white and grey beneath, with variegated markings on the wing; besides its long tail it has the unmistakable feature of the patch of black feathers which descends from the eye in a point on either side, like the old-fashioned “Dundreary” whiskers. The hen is, quite rightly, not whiskered, and is slightly duller in her general markings. The cry of this bird is described as being quite unmistakable, and resembling the clear note of a silver banjo string. The nest is found almost all through the summer; it is built in dry sedgy reeds and water-herbage, of similar dry sedges and grasses, and lined, as a rule, with the same grey reed-plume which is used by the Reed Warbler. Five or six eggs are generally laid; they are blunt at each end, of a creamy white, curiously sprinkled, not very thickly, with short, fine, hair-like lines of reddish-brown. The “Reed Pheasant” (as the marshmen call it from the length of its tail) is not a

Tit, though it looks something like a Long-tailed Tit much magnified ; it has no very near relatives and occupies a family position by itself.

LONG-TAILED TITMOUSE.

(*Acredula caudata.*)

Bottle-Tit.—Next to the Goldcrest, this is the smallest British bird, though the extreme length of its tail gives it an advantage in actual length over a number of larger species. Though it strongly resembles the Blue and other Tits in its restless and active habits, there are many obvious points of difference between them, and the Long-tailed Tit is placed scientifically in a genus of its own, though within the main Titmouse family. It is a hardy and active little creature, in spite of its delicacy of form, and is as familiar in winter as in summer. It nests early in the year, the young being often hatched before the end of April ; and from the end of one breeding-season to the beginning of the next it forms large family parties or small flocks of a dozen or twenty individuals, which may often be seen making their way through the hedges and from tree to tree in search of food, calling to one another with a sociable little piping cry as they follow one another by twos and threes

from perch to perch, with their weak, bobbing flight, and their long tails stuck out behind them like a party of little stiff-tailed tadpoles. They are very attractive to watch upon these excursions, as, like all the Titmouse family, they cling to the twigs in every possible attitude, and are remarkably tame and fearless. Their plumage is also very distinctive and striking in its contrasts of black, pink, and white. The large, oval, lichen-covered nest of the Long-tailed Tit is perhaps the most beautiful and remarkable of any British bird's. It is built in many different situations; most usually among thick thorns or brambles, but often in a furze-bush or holly-bush, or in ivy on a tree-trunk, or in a quite different situation from any of these, in a large fork of an ash, willow, or other tree. In this last situation its thickly lichened surface often seems to conceal it with remarkable completeness, as it rests against the lichens which cover the boughs. When, however, it is placed in a green bush it is just as thickly covered with lichens, which then have the opposite effect of making it far more conspicuous than it would be without them; so that it is very doubtful if this can be regarded as a true case of "protective mimicry," a case, that is, in which the bird is led to make its nest look like its surroundings for the express purpose of concealing it from observation.

When we see that the practice of adding lichens actually tends to endanger the nest twice out of three times, it is scarcely reasonable to suppose that the lichens are added in the third case for the definite purpose of concealing it. Protective mimicry is undoubtedly one of the forces which have a great influence in the life-history of birds and animals and insects ; but the more carefully we examine the question the more we seem to see that it is after all only one of many such forces, most of which we have not yet perceived and understood ; and there has been a tendency of late years, which has spread from learned scientific treatises into the most popular text-books, to apply this "protective mimicry" theory to many cases where it is not supported by the general body of the facts. To return to the Long-tailed Tit's nest, which has led us off into one of the questions which most constantly suggest themselves as we watch our bird-life at first hand, beneath the lichens it is mainly built of moss, and is thickly lined with feathers. It is built up from the bottom, and in its early stages is often exactly like a half-built Chaffinch's nest. Then the sides are carried up, first evenly, and then one side faster than the other ; this side is finally continued over the top, like a hood, and the entrance-hole is formed a little below it. Seven or eight eggs are usually

laid, but sometimes as many as a dozen, or even sixteen. They are dull white, usually faintly spotted with pink about the larger end, but often quite spotless.

GREAT TITMOUSE.

(*Parus major.*)

Ox-eye, Blackcap.—As his name indicates, the Great Tit is considerably the largest of his family, being about the size of a House-sparrow. His strong, piebald markings of black, greenish-yellow, and white also make him easy to distinguish from his near relations. His head, neck, and throat are black, while a black stripe is prolonged down the middle of his breast, which is bright greenish-yellow ; he has a white patch on either cheek, and his back, wings, and tail are chiefly bluish-grey, with darker quill-feathers on the wings. He is a strong and masterful bird, being indeed a bit of a cannibal, among his other habits ; he will kill smaller and weaker birds, splitting their heads to get at the brains, of which he is especially fond, and I once remember driving him out of a hole in a pollard willow which contained the mangled body of a hen Redstart lying upon her broken egg-shells. But, as is generally the case with

human cannibals, a feast of this kind is an occasional unpleasant luxury rather than a daily practice, and his depredations upon green peas and the young buds of fruit-trees are, as a rule, the extreme limit of his iniquities in diet. He also destroys an immense quantity of harmful insects, especially caterpillars, for his young, at the time in May and June when caterpillars are most innumerable. The Great Tit is of course resident throughout the year, like all his family. His clear, see-saw, "saw-sharpening," spring cry is heard in mild weather very early in the year. He sometimes begins to nest early in April, but more commonly near the end of it. The general nesting-place is a hole in a tree or wall, but his taste for holes of any kind sometimes leads him to build in the most extraordinary places, such as a pump, a lamp-post, a letter-box, or a flower-pot lying upside down. The nest is a plentiful heap of moss, hair, and wool, packed in to fit the hole, with the moss as the lowest layer, and in a hollow in this warm cushion six or seven eggs are usually laid, though as many as a dozen have been known. Like all the Tits', they are white, spotted and freckled with light vermilion red, and slightly smaller than the Hedge-sparrow's or Robin's. Their larger size distinguishes them clearly from those of the next three species, though they are

often extremely like the Nuthatch's. The hen birds of all these four Titmice often sit extremely close when disturbed upon the nest ; their fierce, snake-like hissing and spirited attempts to peck the intruding hand frequently cause much mystification and alarm to people who are ignorant of their habits.

COLE TITMOUSE.

(*Parus ater.*)

The name is also spelt Coal Tit or Titmouse, having probably been given on account of the black markings on the head.—Another most characteristic little Titmouse in all its ways, though, like the Marsh Tit which follows, less bright in plumage than the larger and better known species. In size, habits, and general appearance it is so like the Marsh Tit that the slight but unmistakable differences in marking want looking for rather carefully in order to distinguish it satisfactorily. Both of them are small, sturdy, grey birds with black about the head ; but the Marsh Tit has a complete black cap, extending down the back of the neck, while in the case of the Cole Tit this cap is split almost completely into two by a central white stripe. The Cole Tit's back and wings are also a clearer grey than the Marsh Tit's, which

have more of a greenish-brown tinge; but the head-markings are the unmistakable point of difference. The Cole Tit is fairly common in most parts of the country, though a little scarcer, as a rule, than its Great and Blue relations; it seems particularly fond of old orchards and thickets of other old, gnarled, and lichened trees, such as ancient whitethorns. It builds in the latter part of April, in the usual Titmouse holes or fissures, either in trees or walls, or sometimes in a small animal's burrow in the ground. Moss is the chief material, with a good deal of wool, hair, or fur as well. Seven or eight eggs, sometimes ten or eleven, are laid, white, spotted and freckled with red in the usual Titmouse fashion. It is impossible to distinguish either nest or eggs with certainty from those of the Marsh and Blue Tits; it is necessary to identify the parent bird.

MARSH TITMOUSE.

(*Parus palustris.*)

The Marsh Tit is by no means confined to marshes or marshy ground, and is no more given than any other of the Tit family to mud-grubbing like a Snipe or a Moorhen, as the name might

seem to imply. But it is fond, among other trees, of the willows and alders which grow along the banks of streams, and often nests in some hole in them. It is distinctly scarcer, on the whole, than the last three species or the next ; but in some districts it is found more commonly than the Cole Tit, which it much resembles. Its chief points of resemblance to and difference from that species have been described under the previous heading, and there is no need to detail them afresh. It chooses the same sites for its nest, though it sometimes excavates a hole for itself in rotten wood, instead of relying always on finding one, and builds it of the same materials ; the eggs, too, are practically indistinguishable. The Marsh Tit seems, however, to have been endowed with a rather less full share of the true Titmouse character and spirit than the other members of the family ; it always appears a trifle less overflowing with energy than the others, there is something a shade less self-assertive in the way it carries its head, and it does not seem to exhibit quite to the same degree an exuberant preference for an attitude upside down on a branch to any other which can be chosen.

BLUE TITMOUSE.

(Parus cæruleus.)

The name Tom-tit is most often applied to this species, though sometimes to all of the three preceding as well. It is sometimes called the Bluecap, and Nun.—The Blue Tit is probably the best known of the family, and has all the Titmouse characteristics in the strongest possible degree. The blue markings on its head make it easily recognisable in any company, and their brightness is further set off by its white cheeks and eye-stripes, and the yellow and yellowish-green of most of the rest of its plumage. It can partially erect the feathers of the head, much like the Goldcrest, though it has no such full and conspicuous crest as is possessed by the rare species next described. Like the Cole Tit, it is very fond of old orchards, where it climbs and swings among the lichen-covered branches with its sharp, self-assertive note, and often builds in holes in the apple-trees. It begins to nest in April, and is as little particular as the Great Tit in choosing a hole for the purpose, the most extraordinary situations suiting it as well as more normal crevices and cavities in a tree or a wall. The nest is a warm and plentiful bed of moss, wool, and hair, in the hollow of which it lays, as a rule, seven or

eight eggs, though this number is sometimes much exceeded. The eggs are white, speckled, and spotted with light red, and cannot be distinguished with any certainty from those of the Cole Tit and Marsh Tit. Once again, it is necessary to see the bird. By the time that the breeding season is over the labours of the old birds in looking after their numerous family make them very worn and shabby, compared with their brilliant April smartness. In the family parties, which are often to be seen towards midsummer, the parent birds are almost as dingy in colour as the newly-fledged young, though they keep the remains of their bright blue markings, whereas the young can be distinguished by their duller plumage of variegated yellows and greens. The total amount of damage done to fruit-buds, ripe apples and pears, and possibly garden seeds by this bird is very small indeed in comparison to the enormous number of injurious grubs and insects destroyed by it in the course of the year.

CRESTED TITMOUSE.

(*Parus cristatus.*)

The Crested Tit only breeds in this country in the remains of the ancient Scotch pine forests, which now survive, in anything like their former

condition, only in the valley of the Spey. The individuals which have been rarely met with in different localities in England are more probably wanderers from the Continent than from Scotland. The bird breeds in many European countries, and is not there confined to pine-woods. Its colour is mainly brown above and dull white beneath, but the conspicuous crest is black and grey, while there are noticeable black, grey, and white rings and patches round the neck and throat. The nest is built in a hole or fissure in a dead or living fir, sometimes in a post, and the materials are chiefly moss, hair, and wool. The eggs are from five to eight in number, and both in size and colour very closely resemble those of the last three species.

NUTHATCH.

(*Sitta europæa*.)

Nut-jobber.—This interesting climbing bird is frequent and well-distributed in most parts of southern and midland England, and haunts woods, orchards, gardens, and all such places as are well provided with good-sized trees. Stout and strong in build, with a large head and a short tail, it is bluish-slate colour above and warm yellowish-buff

beneath, while a black streak runs from the base of the beak, past the eye, to the back of the neck; it may often be seen actively running about the trunk or boughs of a tree in search of insects, while it has gained its name from its characteristic habit of fixing a hazelnut in the crevices of the bark of an oak or other rough-skinned tree, and hammering it to pieces with its bill to get at the kernel. The sound of this operation may be heard at a considerable distance; a similar noise, however, may be often traced to the Great Tit, which will hammer to pieces hard seeds and small kernels on a bough in something the same way. There is another loud mallet-like noise to be heard in the woods, and that is the remarkable drumming sound produced on a dead bough by the Great Spotted Woodpecker in spring; but this is much more rapid and continuous, as well as louder, and so is easily distinguishable. Like the Woodpecker's, which it resembles in shape, the Nuthatch's flight is direct but dipping; its general habits are very much like those of a Woodpecker, though it has also a strong dash of the Tit, and it does not use its tail to prop itself up when hacking with its bill, as the Woodpeckers do, being not quite so completely and perfectly adapted for a tree-climbing and hammering life. Its most conspicuous note at all seasons of the year is a ringing metallic

call, repeated time after time, as it flits and runs among the big upper timber or on the breadth of a trunk. It nests in late April in a hole in a tree, or, more rarely, a wall. Like the Tits, it takes a hole ready-made, and does not excavate one for itself, like the Woodpeckers, though an old nest-tunnel of the Green Woodpecker is one of its most favourite situations. The most interesting point in its nesting habits is its way of plastering up, in most cases, the mouth of its chosen hole with grit, clay, and sand until there is just room for its own body to pass. This clay ring or stopper has a very odd and striking appearance, let in, as it were, on the side of a tree-trunk or bough, and is a very tough and well-made piece of pottery. The nest itself is a loose and rather scanty bed of small twigs, moss, dry leaves, and especially scales and fragments of soft bark. Five or six eggs are laid, which cannot be distinguished with certainty from those of the Great Tit. Their average size, however, is the least trifle larger, and the spots have usually a slightly heavier and more clotted appearance, while there is generally a darker brownish tinge in their red.

WREN.

(*Troglodytes parvulus.*)

Jenny Wren, Titty Wren, Cutty Wren.—The Wren is well-known everywhere in the British Islands, and indeed in Europe, and its small size and big heart make it an almost universal favourite. It is always a capital little bird to watch, whether we see it busily threading the interstices of a faggot-pile in its search for food, or spirting out its shrill and compact little song with its tail and head in the air, on the top of a stake, before spinning off with its straight, whirring flight, or chasing a prowling cat or weasel down the hedge-row with an unwearied flow of shrill, grating abuse. It is one of the birds, too, which haunt the neighbourhood of human dwellings most closely, and seem to form for us a sort of inner circle of bird acquaintances. It nests in many different situations, some of the most common being among ivy on a tree or wall, in a hole or crevice in a wall, tree, haystack, or thatched roof, under the edge or cornice of turf and roots projecting from an earthy bank, and, rather less commonly, among thorns, brambles, garden shrubs, and furze-bushes, especially when tangled with dead bracken. Moss and dead leaves are the chief materials of the nest, which is oval or round,

with the hole in the side, and is usually lined with feathers, but sometimes with fern, moss, and bits of dry leaves softly felted together. The resemblance of the nest to its surroundings is sometimes wonderfully close, as, for instance, when it is hung amongst dry bracken and brambles, and dead stems of the fern are used as a natural framework, which is filled up with other loose pieces of the same material. But there is no convincing evidence, in this and similar cases, of any conscious or definite "protective mimicry" or "adaptation to environment"; it is at least as likely that the bird simply made its nest of the material which lay nearest to hand. In other cases, too, as when the nest is made of green moss, and fills a chink in a grey wall or earthy bank, it is rather conspicuous than otherwise; and if the habit of deliberately making the nest resemble its surroundings was to be credited to Wrens at all, we should naturally expect to see signs of it in most, if not all cases, instead of only in a comparatively small proportion. However this may be, the nest is a very ingenious and often beautiful one, remarkable, too, for its large size in proportion to the bird. From six to eight eggs are generally laid; they vary a good deal in size, being also often large for the size of the bird, and as big as a Blue Tit's. They are pure white, thinly spotted and speckled

about the larger end with reddish-brown, this tint being a good deal more of a brown and less of a red than that of the markings on a Willow Wren's egg, or any of the Tits', which they otherwise rather closely resemble in some cases. It is not uncommon for them to have no spots at all. For every lined and completed Wren's nest which is found there are half-a-dozen which never get beyond the stage of unlined shells. Though the exact meaning and purpose of these so-called "cocks' nests" is not yet very clearly known, they are not merely ordinary nests which have been deserted half-way through. In a good many birds traces are seen of a habit of building nest-like structures for courtship, distinct from the regular nests in which they bring up their young, the best-known examples of this being the strangely decorated runs and tunnels of the Australian Bower-birds. Very probably the numerous "sham" Wren's nests are bowers or pavilions of this kind. As a rule, the Wren does not make its true nest by lining and finishing one of these bower-nests, but builds a new one from start to finish. But I have known such a long time (nearly four weeks) to elapse between the date at which the shell of a nest was finished, and the lining subsequently put in, and eggs laid, that it looks as if in some cases, at any rate, a nest originally built for a bower may

be finished and used as a nursery. After the young Wrens have left the nest it is sometimes used later in the summer for roosting purposes at night by broods of other small birds; a kind of small bumble-bee, too, will sometimes build its own nest inside it. In winter, Wrens will roost in their own bower-nests and true nests alike, as well as in those of other birds, such as House Martins. Like many other creatures, the Wren tends to develop differences of structure and colour when it is isolated on small and remote islands; and it has been decided that one such variety, that which inhabits the distant Hebridean Island of St. Kilda, is sufficiently distinct to be given specific rank as the St. Kilda Wren. It is open to argument, however, whether it really deserves separate recognition any more than the Black-bellied Dipper, which we discussed on a former page, and many other similar varieties. It is larger and darker than Wrens of the ordinary description.

TREE-CREEPER.

(*Certhia familiaris*.)

Tree-climber.—Like the Nuthatch and Goldcrest, this delicate little bird is, perhaps, more familiar to most people in winter than in summer, when the full foliage helps to conceal it. It is

slender in form, sober in colour, quiet of voice, and very quick and shy in hiding itself on the further side of a bole or bough as it runs hunting for insects, with its curved slender bill, in the interstices of the bark and wood. In its tree-climbing, agile habits it is very like the Nuthatch, but its slender head and delicate forceps of a bill are as perfectly formed for its special business of probing the smallest cranny into which an insect can creep as they would be absolutely incapable of splitting a hazel nut like the massive neck and beak of the Nuthatch. It has also a different method of covering its ground ; instead of searching the tree upwards, downwards, sideways, and anyhow like the Nuthatch, it almost invariably begins near the ground, works its way up in a zig-zag or spiral course till the beginning or middle of one of the chief branches, and then drops down to the foot of a new tree to begin in the same way again. It uses its stiff, pointed tail-feathers to support itself in climbing very much in the fashion of the Woodpeckers, and as it runs up the tree-trunk in its close, jerky way, it has a peculiarly flat and curved appearance, with its tail clasping the bark at one end and its bill at the other. Its upper parts are minutely and beautifully mottled with brown, and, underneath, it is a clear silvery grey. It generally breeds in May, and makes its nest in various holes

and crevices in walls and trees. The places it selects are generally casual cracks and fissures, rather than the snug, tight holes which appeal to most other birds. The commonest place of all is, perhaps, behind a sheet of bark, where it has decayed and come away from the tree; it also builds in other crevices in dead or living trees, in the crannies between an ivy-stem and the trunk, in cracks of walls, and between the slates and tiles of outhouses. The nest is always a rather slight, soft structure, and in this last situation I have known it to be no more than a semi-circle, or half-nest, of straws, moss, and cobweb, barely sufficient to prevent the eggs rolling away down the slope. In other situations there is generally a loose foundation of small twigs, chips, and bits of soft bark beneath the finer lining. Six to eight eggs are usually laid, which are sometimes not very easy to distinguish from those of the Marsh or Cole Tits, being white, spotted with red and purple. But as a rule they are smaller, and flat-topped rather than perfectly oval in shape; while the spots are darker in colour, with a purple admixture which the Tits' eggs have not, as well as being generally a good deal thicker and more clotted in appearance, and often coagulated into a dense cap or ring.

PIED WAGTAIL.

(Motacilla lugubris.)

Water Wagtail, Dishwasher, these names being applied to all the species in the family.—A well-known and very graceful bird of the stream and waterside, as well as of ponds in farmyards and gardens. As a species it is with us for the whole of the year, though a great deal of migration goes on all the same among individuals. No farmyard is complete without its pair of Wagtails, and the bird, like the Robin, Wren, Spotted Flycatcher, and other household species, has the faithful and excellent habit of often nesting year after year in the same place. The usual situation is in some wide-mouthed hole in a tree, wall, rock, or bank ; here a rather flat and shallow nest is built of moss, dry stems, and roots, lined with hair, fur, and wool. The birds begin to build in early or mid-April. Four to six eggs are laid, light pink or grey in ground-colour, speckled more or less thickly all over with black or dark greyish-brown. This is one of the smallest birds which run, not hop, and it is very graceful to watch as it pursues its insect food about the edges of a stream or pool, or in a wet, shady roadway after a summer night of rain, making quick darts along the ground and little

flights into the air, all the while keeping its long tail in constant motion. On the Continent of Europe it only occurs in a few of the westernmost regions, its place being taken elsewhere by the White Wagtail (*Motacilla alba*), a closely related bird, which is fairly frequently found nesting in this country, and probably does so more often than is thought, escaping notice owing to its similarity to our common species in general appearance. The difference, however, is not at all hard to perceive, at any rate in adult specimens ; the back of the cock White Wagtail is light grey, whereas the cock Pied Wagtail's is chiefly black, and this gives the former bird a much lighter general appearance to the eye, even on a casual inspection. The same difference is to be seen, though to a less striking extent, in the case of the hens. Occasionally the two species interbreed with one another. In the country districts of Norway a pair or two of White Wagtails is to be seen attached to most of the houses, since some stream or lake is almost always close at hand, and the birds take much the same half-domestic position as Robins do with us. The Robin in Norway, on the other hand, is more retiring in disposition, and is generally found in the woods.

GREY WAGTAIL.

(Motacilla melanope.)

This is mainly a bird of the rocky streams of the north and west, like the Dipper, but it breeds occasionally in some of the southern and midland counties, and is not uncommon in winter in most of the lowland parts of the country. It is the most beautiful of the Wagtails, and one of the most beautiful of British birds, in its clear grey upper plumage, varied a little with brown, white, and black, its black throat-patch in spring and summer, and the bright sulphur-yellow of its under parts. Unlike the colouring of most other birds, this yellow is brighter towards the tail than upon the breast, and the unusual length of this characteristic feature of the family is thus made doubly conspicuous. The hen has little or no black upon the throat, and is slightly duller in colour altogether, as are also the young. But all alike are wonderfully active and sprightly in their movements, and a family of them darting and playing among the cascades and mossy boulders of a hill-country stream on a sunny May morning is as beautiful a sight as bird life in Britain has to show. The Grey Wagtail is an early nester, the eggs being generally laid before the middle of April, so that

the full-grown young are out and about upon the water-sides before many other birds have much more than begun to build. The nest is generally built close to water, in a hole in a rock, or wall, or bank, or heap of stones ; it is rather flat and shallow in form, like the Pied Wagtail's, and is mainly made of moss and roots, with a warm lining of hair and wool. The eggs are a trifle smaller, as a rule, than those of the Pied Wagtail, and are quite distinct from them in appearance. They are a pale straw-yellow, or light clay tint, in ground colour, sometimes washed or mottled with a similar but darker yellowish shade, and fairly thickly marked with spots and speckles of darker yellowish-brown. They are rather like an unusually pale variety of the Whitethroat's. Five is the usual number.

YELLOW WAGTAIL.

(*Motacilla raii*.)

Ray's Wagtail, Cowbird.—Unlike the Pied and Grey Wagtails, this is only a summer visitor to our country, arriving about the middle of April. It chiefly haunts moist meadows and pastures, where its food of insects is plentiful, and for the same reason it is often seen in close attendance on cows (hence one of its local names), since many insects are both attracted to cows as they feed and

are dislodged by them out of the grass. The Yellow Wagtail is a little smaller than its relatives, and is easily distinguishable ; its breast and belly are yellow, like those of the Grey Wagtail, but its upper parts are greenish-olive, with a darker tail. It is interesting to watch it in the meadows, leaping up and catching some midge-like insect under the very noses of the cattle ; but it has scarcely so much grace and dash in its movements as the Grey Wagtail. The nest is built on the ground in some slight hollow among standing grass, or green corn, or marsh-marigolds and other such stream-side plants. It is generally extremely well-concealed. Building begins about the second week in May, and the materials used are chiefly moss and dry grassy stems, with hair and fine fibrous roots for the lining. Five is the usual number of the eggs, which are rather smaller than those of the other Wagtails ; they are of the same general type as the Grey Wagtail's, but fairly easy to distinguish, even apart from the situation of the nest. Their ground colour is dull greyish-white, but it is almost covered by dense, curdled markings of dingy yellowish or greenish-brown. The egg much resembles the Sedge Warbler's in the fashion of its markings, but they cover it rather less densely, and the colour is a good deal dingier, and with no reddish tinge.

TREE PIPIT.

(Anthus trivialis.)

Field Lark, Tree Lark, Wood Lark (Scotland). —In plumage and in many of their habits the Pipits closely resemble the Larks; but in the more permanent and trustworthy features of structure they differ from them considerably, and are so like the Wagtails that they have been given a scientific position next beside them. The Tree Pipit chiefly haunts rough ground interspersed with bushes, and the fringes of woods, and arrives in this country about the middle of April. It is a warm brown above, mottled with small darker brown streaks, and warm buff on the breast, marked with spots or short streaks of dark brown, in the fashion of the Skylark or the Thrush. It is rather difficult to distinguish at first sight from the Meadow Pipit, which is with us all the year; but it is noticeably larger, and it has warmer tints in its plumage both on the back and breast. It haunts, moreover, more bushy and leafy places than the Meadow Pipit, which prefers open moorlands, hill-sides, and fields, though the localities of the two birds often overlap. Both sing mostly upon the wing, but the Tree Pipit alone has a characteristic way of beginning its song on the top of a tree,

rising into the air, and descending to its perch again in a parachute-like manner, still in song. The nest is built about the middle of May of dry stems, roots, and moss, lined with fine grass and horsehair, and is well concealed upon the level ground or in the side of a bank, among the grass and mixed vegetation. Five eggs are generally laid ; they vary a great deal, but there are three well-defined types. In one of these the ground colour is greyish-white, densely speckled with fine markings of deep reddish or chocolate-brown ; this type is very like a rather warmly-coloured Meadow Pipit's egg, though it is larger in size. In the second type the ground colour is a darker and more mottled greyish-green, richly marbled and clouded with still darker shades of the same colour, the spots having often a sort of central pip or root. The third type has the same cloudings and markings and pip-like centres, but the whole scheme of colour is carried out in a warm and beautiful reddish-brown. Illustrations are given of two of these varieties.

MEADOW PIPIT.

(*Anthus pratensis*.)

Titlark, Meadow Lark, Moor Tit, Moss-cheeper.—This is the commonest bird of moorland

and mountain-side wastes, as well as of tussocky links and sand-dunes by the sea, but it is also often found in the fields of lowland and cultivated districts. Its appearance and habits have for the most part just been described under the heading of the Tree Pipit, which it much resembles. The nest is built among grass-tussocks, heather, or other herbage, often in some slight hollow in the soil, and is made of dry grass, with a finer lining of the same sort. It may be found with eggs from April to July. Four to six eggs are laid; they are greyish in ground colour, densely freckled with deep brown, and have often a long black scribbling or two at the larger end.

The Rock Pipit (*Anthus obscurus*), the third regular British species of this family, and a resident all the year round, is a sea-coast bird, and does not therefore come within the plan of this book. It is common on the rocky and turfy slopes of cliffs, and much resembles the other two species, though it is slightly larger than either in size.

RED-BACKED SHRIKE.

(*Lanius collurio*.)

Butcher-bird.—This interesting bird is the only member of its family which breeds in Britain, and is itself rather local in its distribution, being only

common in the southern part of England and Wales. It arrives among the later birds of summer, and nests towards the end of May, often clinging to the neighbourhood of the same spot for several years in succession. The most common situation for the nest is in a hawthorn bush or hedge, or a thick mass of brambles, from four to seven feet from the ground; occasionally it is hung up in a peculiarly loose and insecure position among the stems of honeysuckle, bryony, or some other climbing plant. In accordance with the size of the bird, the nest is considerably larger than a Hedge-sparrow's or Greenfinch's, though as much inferior to a Thrush's or Blackbird's; it is often very poorly concealed. The favourite material for its construction is the half-dry stems of goose-grass or cleavers, the creeping plant well-known for its round, green, clinging seeds. These stems are wound round and round the outside of the nest, which is lined with wool and hair. The eggs are rich and beautiful in colour, and easily to be recognised, though there are several more or less distinct types. The commonest variety have a ground of rich, creamy buff, often flushed with pink, and spotted towards the larger end with deep lilac-red and fainter tints of ash-grey, these spots being often concentrated into a very distinct zone or ring. One less frequent variety has the

whole ground-colour deeply flushed with rich pinkish-red, and in another it is dusky, ashy brown, with darker brown or grey spots. The eggs are four or five in number. The male bird is conspicuously marked, with his chestnut back, grey breast, and heavy black streak across the eye, and he is fond of posting himself on the top of a bush or some other conspicuous position near his nest, partly to watch for the bumble-bees, beetles and other insects on which he feeds, but also to guard his own peculiar domain. Two or three shrikes are almost always to be seen at any time towards midsummer, for instance, on the telegraph wires of the railway as the train passes between Slough and Reading, their nests being concealed in some neighbouring bush or hedge. When an intruder trespasses too near, the Shrike follows him uneasily about, with a short, harsh note. The hen bird is quite different in appearance, being duller reddish-brown above, with a paler breast, mottled and lined with grey, and without the dark eye-stripe. The Shrike has all the air of a small bird of prey, and as he ranks in size between the Thrushes and the whole multitude of smaller finches and warblers, he is the bugbear of a very numerous variety of species, on the young of which he often preys, and which show in consequence their antipathy by pursuing him as they do a hawk

or owl, though not so vigorously or often. He has gained the name of the Butcher-bird from his well-known habit of spiking bees, beetles, and young birds on thorn-bushes till he needs them for home consumption ; these “larders,” however, are by no means commonly met with, and are well worth careful examination when found.

SPOTTED FLYCATCHER.

(*Muscicapa grisola*.)

Beam-bird.—This is one of the most familiar of garden birds, in spite of its inconspicuous colours and almost voiceless habits. Its nest is one of the commonest to find, as summer advances, in some creeper, or corner of trellis-work, close beside our doors or windows, and most people know the bird's conspicuous way of posting itself on the top of a stake or rail or prominent twig, and sallying forth time after time into the air to seize an insect before returning to its watch-tower again. This Flycatcher waits to arrive in this country until the warmth of spring has, or ought to have, hatched out its food of winged insects in plentiful abundance, and it is not often seen until nearly the middle of May. It begins to build about the close of the month, and its eggs are generally laid

by midsummer, though they may often be found in July. The nest is built in many different, and often extraordinary, situations ; but some of the commonest are an open hole in a wall, upon the stem of a creeper or fruit-tree trained to a wall or trellis, or on an ivy-stem against a tree, and upon a beam or window-ledge in an outhouse. It is rather small and slight, but is beautifully made of moss, cobwebs and lichens felted together into a soft green and silver mass, with wool, hair, and feathers worked into the lining. There are four to six eggs, pale green in ground colour, heavily clouded and spotted with dull red. The cock bird has a very faint, low song, and the clicking alarm note is also much quieter than that of most other birds. The plumage is a rather dull brown above and dull greyish-white beneath, with small streaky flecks of brown upon the throat and breast. There is always something extremely suggestive of later summer about this silent little bird, with its soft, fine-weather nest, and its life of watching for heat-bred insects in the gardens and shorn hayfields. Even the Sparrow will try at times to catch a currant moth or a may-fly upon the wing ; but there is all the difference of the hopelessly clumsy beginner and the finished expert between the Sparrow's wild and generally unsuccessful attempt, and the perfect ease with which the Spotted Fly-

catcher uses exactly the right amount of effort, and no more, to secure its midge or moth. It does not invariably catch its prey ; when it makes, for instance, a bold and sporting attempt to “ bag ” a strongly flying Peacock butterfly, the butterfly seems generally to win. But there is always an extremely workmanlike finish about its movements, and an entire absence of confusion and fuss.

PIED FLYCATCHER.

(*Muscicapa atricapilla*.)

Coldfinch.—This is an extremely local bird, being hardly ever seen in many of the counties of England which are favourites with most small insect-eating birds. It is chiefly found in Cumberland, Westmorland, and various counties of Wales and the Welsh border, frequenting woods and copses in mountain valleys and hilly districts. The cock bird is mainly black above, with a white spot above the beak, a white patch on the wings, and a greyish one near the tail ; the under parts are white. The markings of the hen are of much the same pattern, but they are carried out in olive-brown and dull yellowish-white, instead of black and pure white. In size the birds are a little

smaller than a linnet, and of slender build. They arrive earlier than the Spotted Flycatcher, towards the end of April, and begin to build about the middle of May. The nest is placed in a hole in a tree in one of the rather thin and scattered woods or belts of low timber which the bird frequents, or occasionally in a hole in a wall ; it is made of roots and dry grass lined with hair. Six or seven is the usual number of the eggs, which are pale blue, paler than those of the Redstart, which builds in much the same situations. This species feeds principally upon insects, like the Spotted Flycatcher, but is less given to catching them upon the wing.

SWALLOW.

(*Hirundo rustica.*)

Barn Swallow, Chimney Swallow.—The marvelous ease, grace, and swiftness of the Swallow and its kindred species upon the wing seem to set them apart as almost a separate winged race, most bird-like among all birds, and we know from drawings and inscriptions upon ancient Greek vases that long before the Christian era the coming of the Swallow was felt to mark the beginning of spring, just as we look upon it to-day. But

perhaps the most striking point about the Swallow is the fact that among all British birds it alone has made itself absolutely dependent upon human dwellings for the site of its own nesting-places. Even the House Martin, which builds beneath our eaves, still occasionally clings to its ancient situation of a steep cliff or rock-face ; but the Swallow, proceeding step by step from its original cave in a rock, or possibly a hollow tree, to wide old-fashioned chimneys, and so to the insides of buildings, has now almost absolutely deserted its first natural choice, and fixes its mud nest only upon some foundation built by man. Though both this species and the two next may be called "Swallows" in a wide family sense, just as Rooks and Jackdaws may be included among the "Crows," there is a plain enough distinction between them, and the bird which commonly builds under the eaves and in other places on the walls of our houses is not the Swallow, but the Martin, or House Martin. The nests are easily distinguished, whatever their situation, since the Swallow's is in shape like an open saucer, while the Martin's is nearly globular, and is closed in except for one small hole. Neither is it difficult to distinguish the two birds ; the Swallow is larger, has longer wings, a longer and more forked tail, and is more active and sweeping in flight. Its upper

plumage is dark from head to tail-tip (except for some slight and inconspicuous white markings at the edge of the tail-feathers), while the Martin has the lower half of its back pure white. Beneath, both birds are white alike, though the Swallow's white is less pure than the Martin's. The Swallow has also a small chestnut patch above the bill and a larger one upon the throat; the dark upper parts are a deep metallic blue, as is clearly seen in sunlight, changing to a greener tint upon the tail. The head, neck, and back of the Martin are also deep, glossy blue, but its wings and tail are a dull, sooty black. The twelfth of April is about the usual date for the Swallow to appear in most districts, but it may be a week or ten days later, while it sometimes shows itself a week or more before the end of March. It has generally left us before the end of the third week in October; but, like the House Martin, it often lingers later in individual cases, and may be seen on mild, sunny days up to the end of the year, or even into the following January. A case is recorded by Mr. Howard Saunders in which a single Swallow actually survived in Yorkshire till the following spring. The birds show no hurry, as a rule, to begin to build, and there are few nests with eggs before the third week in May. If all goes well and undisturbed, a second brood is generally produced in the course

of the summer. The nest is a semicircular saucer or bowl of mud-pellets, kneaded together with short fragments of straw, lined with straws, some horse-hair and dry grass, and with an inner lining of feathers. It is generally affixed to a beam or rafter in a cowshed or other outbuilding; many curious sites have been recorded, but, speaking generally, the Swallow builds inside buildings, and the Martin outside them, the latter needing less protection from the enclosed shape of its nest. Four to six eggs are laid, slender in shape and creamy-white in ground-colour, fairly thickly spotted and speckled with shades of reddish-brown, which may vary from a light, clear tint to a dusky umber, and often with some fainter spots of grey. The Swallow has a low and pleasant twittering song, sounding deep in the throat, and a louder, screaming note which it utters when alarmed or when sweeping low over the fields before a storm. It perches more often on roofs and telegraph-wires than on a tree, as its legs and feet are feeble, and it needs a clear space when it sweeps off again into flight; if it alights on a tree at all it chooses some topmost or outmost twig, or a dead, jutting limb.

MARTIN.

(Chelidon urbica.)

House Martin, Eaves Swallow, Martlet.—There are very few people who are not glad to have Martins nesting about a house, and their soft twittering as they busy themselves beneath our eaves all through the summer months seems one of the happiest sounds in nature. It has, too, a rise and fall of inflection which gives it the very air of intelligent and interested discussion, and it is hard to believe, as one listens, that the birds are not consciously raising and rejecting a hundred different suggestions for the better building of their house or the management of the young which are born in it. The points in which the Martin resembles and differs from the Swallow in appearance have been described under the previous heading. It generally arrives in numbers at about the same time (the middle of April) as its kindred species, but a few hardy Swallows are usually to be seen before the arrival of the earliest Martins. This bird is more gregarious than the Swallow, and seldom breeds far from others of its kind ; colonies may still be found occupying the original type of site on the face of a rocky cliff, but the great majority of Martins nest under eaves and window ledges, in the

corners of the windows themselves, or elsewhere about our buildings. The nest-wall consists of a crust of mud pellets, and is completely closed except for a small hole; it is lined with bits of straw and an inner cushion of feathers. If the birds have but little to do to repair a last year's nest for occupation, the eggs will probably be laid by about the third week in May, and a second set about the beginning of July. Many birds, however, only manage a single brood. The eggs are pure white, long, pointed, and glossy; four or five is the usual number. The Martin suffers much from persecution by the House-sparrow, which often appropriates its nest as soon as the outer shell is nearly completed, and lines it with hay, feathers, and general rubbish in its own untidy fashion.

SAND MARTIN.

(*Cotile riparia*.)

Bank Martin, Sand Swallow.—Owing to its special requirements for nesting the Sand Martin is a rather local bird, though it is found in suitable places almost from end to end of the British Islands. It arrives, as a rule, about the end of March or early in April, and is generally to be noticed, as soon as it comes, hawking for insects in the neighbour-

H 2

July 10, 1911. Four young well fledged, in mouth of brick drain about
15 ft square & 3 ft over water of Cam in face of bank
wall. Thrip Chapel grounds, Cambridge. Fed by parent birds.
July 17, 1911. About 50 along Thames, Haverly to Kingston.

hood of rivers and streams. It can easily be distinguished from the two other members of the family by its considerably smaller size, feebler, fluttering, almost butterfly-like flight, and the ashy-brown, mouse-like colour of its upper parts. Its wings and tail are somewhat darker ; the under parts are white, except for a brownish band across the breast. It breeds in strong colonies, often containing dozens or even hundreds of nests, which are situated at the end of long holes or tunnels excavated by the birds in the sandy face of a pit, quarry, or railway cutting, or on the bank of a lake or stream. In exceptional cases they will utilise holes in masonry or crevices in old ruins, and have even been known to burrow into the decayed wood of a pollard willow-tree. The burrow slopes slightly upwards for a distance of between two and four feet, not always in a straight direction, and at the end of it, in a slight enlargement of the tunnel, a soft, loose nest is built of straws, lined with feathers. The birds do not generally begin their excavations much before the middle of May, and about the end of that month four to six pure white eggs are laid, pointed in shape, and with shells so thin and clear, when fresh, that the yolk gleams through them with a beautiful tinge of golden pink. This tint vanishes after a few days' incubation, when the eggs grow dull and opaque in

appearance, as all eggs, indeed, do in greater or less degree as they become hard-set. All the Swallow tribe is much infested by parasitic insects, and the burrows of the Sand Martin often swarm with fleas, which, as is often the case also with the nesting-holes of the Starling, may be seen about the openings, on sunny days, even when the birds themselves have not occupied their quarters for months past. The Sand Martin's burrows are often seized upon both by Starlings and Sparrows, when they are large enough to admit them. The Starling, however, does not as a rule make himself at home in one of these narrow holes unless it has been so much widened as to be unsuitable for its original owners. He does not yet seem to have been clearly convicted of seizing an occupied hole and enlarging it for himself, though he has shown such remarkable adaptability and aggressiveness of late years that there could be little cause for surprise if he developed the habit.

GREENFINCH.

(*Ligurinus chloris*.)

Green Linnet.—The Finches form a well-marked group of birds, including the Linnets and Sparrows, as well as the domesticated Canary,

which mainly feed upon hard grains and seeds, and are provided for this purpose with a characteristically strong, thick, short beak which is their most conspicuous family feature. Such a strong beak would be of little service without the power to apply it, and Nature has given all these birds a thick and stout head and neck, features which distinguish them plainly from all such habitual insect-eaters as the Warblers, Whitethroats, or Hedge-sparrow. And since there are comparatively few insects to be found in our climate during winter, while seeds and grains are not so scarce, it further follows naturally that the Finches remain with us all the year, or visit us for the winter season only, when the majority of the soft-billed birds are recalled by Nature to the South. In all these respects the Greenfinch is a thoroughly representative member of his family. He is a strong and hardy bird, well able to take good care of himself, and is as familiar in his winter flocks about the stubble-fields and corn-stacks, in company with Yellow Hammers and Sparrows, as he is in almost every garden, hedgerow and thicket as a breeding species in May and June. The cock and hen differ very considerably in colour, the cock being a distinctly brightly coloured bird, especially in the breeding season, with his strong greenish tinges both on breast and back, and the

bright yellow patches (which are particularly conspicuous as he flies) on his browner tail and wings. The hen has comparatively little green, and even less yellow, to enliven her general tints of brown, but she can fairly easily be identified by her strong, short bill, and general sturdiness of build. In spite of its generally hardy habits the Greenfinch is not a particularly early nester, no doubt because, like most of its relatives, even the Sparrow, its nestling young are fed on small caterpillars, and it needs to time the arrival of its family for the appearance in plentiful numbers of their food. It begins to build about the middle of April, and the first eggs are usually laid before the end of the month. Its nests are often to be found in abundance in thick garden shrubberies, as well as in hedgerows or copses which skirt arable fields; the reason being that it chiefly feeds on cultivated ground, and likes to nest accordingly as near to the scene of operations as possible. In such districts as the open, arable country which is common in Berkshire and Oxfordshire, the tall, thick hedges which occur at very wide intervals are often packed with Greenfinches' nests in May and June, as well as with those of the Thrush, Turtle Dove, and other less abundant birds which get their food on the same wide cultivated expanses. The nest is often built ten or twelve feet from the ground,

and sometimes higher still, though six or seven feet may be said to be the average height. It is a strongly built and rather untidy structure, chiefly composed of twigs, moss, roots, wool, and dry tufts of grass and weed, either one or all of these kinds of material being used in individual cases. It is lined with fine root fibres, moss, hair, wool, and feathers. The eggs vary a good deal both in size and markings, and may sometimes puzzle the inexperienced, though there is not actually any other kind of egg which they closely resemble. Speaking generally, they are greenish-white in ground colour, dashed and speckled with red, reddish-brown, and fainter tones of grey. But sometimes the ground is a perfectly clean white, while it varies from this to a confused stained mixture of bluish and greyish-greens. The markings, too, are sometimes small, precise spots and dashes of dark brown, and sometimes large blotched stains of crimson, or clear pink, while all these different markings may appear on the same egg. Of the two eggs illustrated, the first belongs to the most common rather stained and confused type, with small markings, while the second is an unusually round and oddly marked variety chosen to show one of the queerer forms into which these eggs sometimes run. Sometimes they are very like a Linnet's in colour and markings, but the

Linnet's eggs and nest are so distinctly smaller that they ought not to be confused with them. It is not uncommon to find nests with eggs as late as July. The song of the Greenfinch is rather dull and indistinct; its most conspicuous note is a grating, dropping drawl, which the cock grinds out time after time, as he sits on some perch near the top of a bush or hedge, with an air as if he did not think very much of it as music, but had nothing better to do.

HAWFINCH.

(*Coccothraustes vulgaris*.)

Cherry Finch.—In this striking-looking bird the stout beak and burly build of the Finches has reached its highest development, and there is no fear of mistaking the Hawfinch for any other British species. The beak is enormous in thickness, and the whole head, neck and fore-part of the body is huge in proportion. In actual size the Hawfinch is about as large as a Corn Bunting, or half-way, say, between a Hedge-sparrow and a Thrush. It is striking in plumage, as well as in shape, the cock being conspicuously variegated, on breast and back, with warm reddish and yellowish-browns, while the wings and tail are banded with black and white, and there is a conspicuous black

eye-patch on each side of the massive beak, and another black patch on the throat. The hen is much the same, though a little duller, in colour, and has not a whit less bill. Though a distinctly shy bird, the Hawfinch often haunts gardens, and the first view of a pair of them quietly parading a lawn or grass-plot is a thing to be remembered. For no very obvious reason it has certainly become much commoner than it was thirty or fifty years back, and it seems to be gradually extending its range northwards and westwards from its headquarters in the Home Counties. It builds about the beginning of May, generally near the top of small trees or large bushes, from fifteen to thirty feet from the ground ; it is especially fond of old hawthorns and other trees with plenty of grey lichen, such as oaks and apple trees. The nest is a rather loose, flat-topped structure built of dry twigs, mixed with bits of lichen, and neatly lined with fibrous roots or strips and shreds of the thin inner bark of the lime-tree. The character of both the bird and its nest shows very interesting general resemblances and special differences when compared with the Bullfinch. The eggs, four or five in number, are very unusual and handsome in appearance, being clear green in ground-colour, with a few spots and dashes, and many long scribbled hair-streaks of greyish, greenish, and

reddish-brown. Hawfinches often exhibit a strong appetite for green peas ; but the gardens are few as yet where they are sufficiently common visitors to have lost their interest and to have been added to the list of the pests. They also feed on cherries, cracking the stones with their powerful beaks ; but the wild varieties are as much, or even more, to their taste than the cultivated fruit, and they are scarcely to be reckoned at any time of year as serious enemies of the fruit-grower.

GOLDFINCH.

(*Carduelis elegans.*)

Thistle Finch.—A graceful and beautiful bird in all its ways, as well as a favourite songster, the Goldfinch has probably suffered more from the bird-catcher than any other English species. The Wild Birds Protection Acts have had, however, an unmistakable effect in checking the decline in its numbers during the last ten years, and in some districts it is once more becoming a fairly familiar bird. With its red, white and black head and throat, clear brown back, black and white wings and tail, and the conspicuous bright yellow patch on the wing which has given it its name, it is very bright and striking in plumage, and there is a

merriness and grace about its flight and movements which further add to its general attractiveness. It is always interesting to watch a party of Goldfinches clinging to the downy thistle-heads in some ragged field, in quest of the seed which is their special and favourite food; and when they pay the same attention to the blue corn-flowers on the sandy cliffs or in the garden border, the spectacle of eager movement and contrasted colours is a very beautiful one. The single call-note which is often heard on these and similar occasions has a peculiar clearness and sprightliness of tone, and these qualities are even more conspicuous in the song. Though resident as a species, the Goldfinch is one of the many birds which to a great extent shift their ground for the winter, and in all probability most of the large parties or flocks which are still to be seen (though in far less than their former numbers) in early autumn are on their way southward across the Channel. At the beginning or about the middle of May the Goldfinch builds a very soft and beautifully shaped nest in various situations in trees and shrubs, generally at a height of from six to twenty feet from the ground. A small fork among the outer boughs or twigs of a large tree is one favourite place; another, even more characteristic, is resting upon a thick branch of a large horse-chestnut; while the bird also

builds in a thornbush or hedge, or in ivy upon a tree-trunk. The nest is built like the Chaffinch's, of moss, wool, cobwebs, and similar soft materials, but is not decked with lichens on the outside ; it is also a little smaller, and often not quite so firmly built, but equally neat in shape. Five is the usual number of the eggs, which are bluish or greenish-white in ground-colour, marked, as a rule, with small spots and dashes of dark red-brown. This common variety is practically indistinguishable from the egg of the Linnet. Sometimes, however, they are almost pure white in ground-colour, sparingly marked with spots and stains of clear, medium brown, or bright rose-pink, like some varieties of the Greenfinch's.

SISKIN.

(*Carduelis spinus*.)

Aberdevine.—This small Finch is mainly familiar in flocks in the winter-time, though it has been known to nest in more than one district of England where pine-woods are common, as well as in Scotland, more frequently. It is not at any time a very common or familiar visitor, its appearances in winter being irregular ; but it may be recognised without much difficulty by the conspicuously

greenish-yellow tint of its plumage, streaked and dashed with darker markings of black and brown. It builds, as a rule, in fir-trees, making a delicate little nest of down, green moss, etc., with a few twigs of the fir outside, and lined with down, hair, and feathers. The eggs, usually five in number, are very much like a rather small Goldfinch's, bluish-white in ground colour, with small spots and dashes of reddish-brown and lilac-grey.

HOUSE SPARROW.

(*Passer domesticus*.)

The Common Sparrow, as it is only too truly called, is found in the neighbourhood of human habitations, both in town and country, over a large area of Europe, Asia, and Africa, while it has also been introduced into North America, Australia, and New Zealand, where it has become an even worse pest to agriculture than it is in its native lands. In Spain, Italy, and other parts of Southern Europe its place is taken, wholly or partly, by a closely allied species, and it is worth notice that even in England it is not found in the villages of the highest moorland regions. Its destructiveness to grain and other crops, and its habit of ousting other and more useful species of birds from their

haunts and homes, has caused its name to be almost universally execrated ; but it is none the less a bird of extremely interesting habits, from its extraordinary faculty of making itself at home almost anywhere, and the bird world would be a great deal the poorer by its absence. Its faculty of thriving in close proximity to man is one great secret of the Sparrow's success in life, and in spite of its enormous abundance, it is never found far away from gardens or village streets, or the grain-fields and corn-stacks upon the farms. The variety of places in which it nests is very great ; where it is particularly numerous and insuppressible it builds a large, untidy nest of hay among the branches of trees, but the typical and characteristic site is in some sort of a hole, either in trees or buildings, or in thick creepers and ivy which supply it with sheltered nesting-cavities of a similar kind. Dry grass and root-tufts, with a lining of feathers, form the Sparrow's natural nesting material, but the nests are often a perfect museum of household odds and ends, and a whole year's collection of such rubbish as bits of thread and string, snippets of cloth and flannel, fragments of door-mats, curtains, and carpets, and pieces of torn letters and old newspapers may often be disentangled shred by shred from a Sparrow's nest of no more than moderate size. The bird has a particularly repro-

bate habit of seizing upon the nests of the House Martin, the unfortunate owner being no match, as a rule, for the sturdy and persistent Sparrow. The Sparrow is not habitually a very early nester, and the third or fourth week in April is the usual time for the first batch of eggs ; but it sometimes begins much earlier, and often goes on breeding into August, or even later. Four to six eggs are usually laid, pale greyish-white, with markings of brown, black, and ashy-grey, which vary greatly both in size and abundance. Some eggs are thickly freckled all over with small streaks and specks, while others are boldly and openly marked with large blotches, and there is every intermediate variety between these two types. While the young birds are in the nest they are mainly fed on caterpillars, and to this extent the Sparrow does the farmer and gardener good service. But by the time that the corn is cut and stacked the depredations of the old and young birds together have far more than counterbalanced their earlier good deeds, and the destruction of the Sparrow wherever possible is as necessary and desirable as the too frequent killing of all sorts of other small birds by the members of so-called "Sparrow Clubs" is absolutely unjustifiable and senseless.

TREE SPARROW.

(Passer montanus.)

The Tree Sparrow is by no means so common a bird as its relative, with which it is often found in company, but it is probably commoner than is generally supposed, owing to its being confused with the better-known species. It is a slightly smaller bird than the other, and slightly more retiring, and less truly sparrow-like, in its voice and ways; its chirp is noticeably less harsh and impudent than the House Sparrow's familiar cry. Both sexes are alike in plumage, and resemble the cock House Sparrow; the Tree Sparrow can be distinguished by having its crown and neck chestnut brown instead of grey, by the black patch upon the white cheeks, whereas the House Sparrow's cheeks are grey and have no patch, and by the two narrow white bands upon each wing, whereas in the House Sparrow the front band is much thicker and broader than the other. It haunts the neighbourhood of houses rather less closely than its relative, though the difference in this respect is not very marked. The nest is built in a hole, generally in a pollard willow or other decayed tree, but also in thatched roofs, as well as holes in walls and under tiles, or even in rocks. Dry grass and

weeds, with a lining of feathers, form the usual materials, but there is often a considerable sprinkling of such miscellaneous rubbish as the House Sparrow loves. The four to six eggs are slightly smaller than an average House Sparrow's; they have the same greenish-white ground colour, but the markings are, as a rule, distinctly browner in colour than any but a very brown variety of the House Sparrow's. Generally they are thickly freckled, but sometimes have more open mottlings and spots. It is unsafe to attempt to identify the eggs without a clear sight of the bird, in spite of their general difference of appearance from those of the commoner species.

CHAFFINCH.

(*Fringilla coelebs*.)

Twink, Spink.—One of the commonest and prettiest of British birds, found in almost every corner of the kingdom. Though Chaffinches are always to be seen in even the hardest weather, a great deal of migration goes on during the winter half of the year, and it is to the frequent habit of the cock and hen birds separating for these wanderings into separate flocks that the species owes its Latin name of *coelebs*, or "Bachelor Finch." The hen bird, especially at the breeding season, is

a good deal duller in plumage than the cock (though the general likeness is obvious), and is also a little smaller in size. The sharp, familiar note, so often to be heard in our orchards and gardens, has given the Chaffinch its two most common local names, while it has earned the title of "Wetbird" from its uttering it with special vigour and frequency when it is uneasily aware of approaching rain. The true song begins to be heard towards the end of February ; it consists of a rapid run of about a dozen notes, with a strong twirling change and fall on the last two, and is always easily recognisable, in spite of varying a good deal in different districts, owing to the partial imitation of the notes of some other bird which is particularly numerous in the neighbourhood. The Chaffinch begins to build from the early part of April, and is not at all particular in the choice of a site ; almost any situation in a hedge, tree, bush, ever-green shrub, bramble-patch, or mantle of ivy will suit. The nest is an extremely smooth and neat one, built of green moss mingled with grey down, wool, and cobwebs, lined with hair and feathers, and often thickly spangled outside with grey tree-lichens. When, as is often the case, the nest is built in the lichened fork of an apple or some similar tree, this covering of lichens is naturally a great help to concealment. As in the similar cases

of the Wren's and Long-tailed Tit's nests, however, it does not seem clearly proved that there is any deliberate or definite imitation of the nest's surroundings on the part of the Chaffinch that builds it. The nest is often covered with lichens when it is built in a thorn hedge or a furze-bush, when they distinctly make it more conspicuous than it would be without them ; and on the other hand it is sometimes (though not often) perfectly bare of lichens when it is built against a lichen-covered trunk or bough. Though no one can fail to be struck by the remarkable resemblance to its surroundings which the Chaffinch's nest often shows, or doubt that this resemblance is likely to be of service to the bird by helping to keep the nest concealed, it seems to be going too far to claim that there is a fixed protective principle here at work. Still less is there safe ground for asserting that the parent Chaffinch consciously arranges the resemblance. Four or five is the general number of the eggs, which are generally of a clear medium brown, sometimes tinged with red, in ground-colour, marked not very thickly with spots, streaks, and dashes of deep red-brown ; very commonly the spots are comma-shaped, or like a note of music, and sometimes there are long intricate lines, like those on a Yellow Hammer's egg. Not very infrequently, owing probably to some weak-

ness or injury, a Chaffinch will lay unspotted eggs of light greenish-blue. The nest is often a wonderfully tight fit for the young birds before they are ready to fly. The Chaffinch often does a considerable deal of damage in a garden to fruit and newly-sown seeds, but it is beyond all doubt so useful in destroying insects, and also the seeds of noxious weeds, that it is very unwise to persecute it.

BRAMBLING.

(*Fringilla montifringilla.*)

Bramble Finch, Mountain Finch.—The Brambling is a winter visitor from Norway, Sweden, and Russia, and the numbers in which it arrives upon our shores vary very much in different years, according to the mildness or severity of the weather prevailing over northern Europe. It mainly frequents the eastern and north-eastern counties, and the large beechwoods of the Chilterns and other inland districts; in some winters immense numbers of these birds are to be seen feeding upon the beech-mast and other seeds or kernels, while for several successive years the bird may never be noticed at all. It is often seen in company with the Chaffinch, which it rather closely resembles, being of the same size and very similar

in markings. It may be distinguished by its more varied, mottled appearance, especially about the neck and back, its richer, chestnut breast, and by a pale patch above the tail which is very conspicuous in flight. It has also a rather harsh, two-syllabled call-note, which is unlike the Chaffinch's. In their summer plumage the old cocks become very strikingly marked birds, and even in winter there is more than a suspicion of richness about their warm mottled browns. The nest and eggs are very much like the Chaffinch's.

LINNET.

(*Linota cannabina*.)

Brown Linnet, Grey Linnet, Red Linnet, Lintie.
—Furzy fields and commons are the great place for the Linnet during spring and summer, though after harvest-time it generally gathers into good-sized flocks, which haunt the stubble-fields for seeds, and may often be seen flitting from one feeding-ground to another with skimming, dipping flight, or pausing in the hedgerows in the still autumn sunshine, and murmuring out a low and musical cry. It is recognisable as a slender but strongly built little bird, with all the characteristic stoutness of head and beak which distinguishes

the Finches, and in colour a mixture of neat but sober browns and greys, with darker wings streaked lengthways with dingy white. But during the breeding season the plumage of the cock bird becomes much brighter and more strongly marked ; a crimson spot appears on the head, and the breast is also flushed with red. The nest is considerably smaller than a Greenfinch's or Hedge Sparrow's, and very neatly and strongly made ; twigs, roots, dry weed-tufts, and a little moss are the usual materials for the outside, and it is lined with wool, hair, seed-down, and finer fibrous roots. It is most commonly built in a furze-bush, but often in other low bushes and hedges, or even in low trees. Five or six is the general number of the eggs ; they vary a good deal in size, but are always smaller than a Greenfinch's, which they often resemble rather closely in colour. They are bluish or greyish-white, marked with small spots, specks and dashes of dark red-brown ; odd varieties are not uncommon with an almost pure white ground, and a few large streaks and blotches of red-brown or brown. The song of the caged Linnet is chiefly acquired by imitation and training, but the natural song is also a sweet one, though rather faint and fitful in delivery.

MEALY REDPOLL.

(Linota linaria.)

Unlike the next species, the Mealy Redpoll is only a winter visitor from Northern Europe, appearing in varying numbers in the east of Scotland and the north-eastern parts of England, and less frequently in the southern and midland counties. It is very rarely seen in spring or summer, when it is engaged in nesting in Scandinavia, Northern Russia, and Siberia. A characteristic Linnet in build and general appearance, it is a little smaller than our common species just described. The red patch on the head, from which it is named, is only to be seen in the breeding season; in winter, the body-plumage becomes strongly tinged with greyish-yellow; and this pale or "mealy" tint is the most characteristic feature of the bird during its irregular winter sojourns in our country, when it passes its time in roving flocks and parties, often in company with one or two kindred species.

LESSER REDPOLL.

(Linota rufescens.)

The Lesser Redpoll is also most frequently seen in small flocks and parties in winter, but it is

by 16, 1911. One in University Park, Oxford, singing & calling exactly like our *A. linaria*.

known to nest in a large number of different localities over the greater part of the kingdom, and probably does so in many neighbourhoods where it has not yet been identified. It is the smallest of the Finches found in Britain, and easily recognisable by this point alone. In spring, summer, and early autumn, the cock bird is mottled-brown above, and reddish-pink upon the breast, while there is a crimson patch upon the head, and a black stripe on the throat; the wings are darker, and banded with reddish-buff. The hen is smaller and darker in general colour; there is no red on her breast, though she has the red patch upon the head. In winter the red fades away, and the Redpoll of both sexes is then a dusky, brownish little bird, with a paler streaked breast, and a dull buff patch on the wing. It is often met with by the side of pools and streams, either picking the dry seed catkins of the alder-trees, or searching for similar food in the belt of vegetable flotsam and jetsam which is washed up along the bank by the autumn floods. The nest is built in late April or May, in various low situations among bushes, hedges, and small trees. It is a small and delicate object, made of moss, vegetable down, and perhaps a little wool, with a few small twigs or stems outside, and a soft, smooth lining of down, hair, and feathers. Its

much softer and more mossy build distinguishes it from even the smallest and neatest Linnet's nest. The eggs, four to six in number, much resemble the Linnet's, being bluish-white, dashed and speckled with reddish-brown, but are smaller and more delicate.

TWITE.

(*Linota flavirostris*.)

Mountain Linnet, Heather Lintie.—This dusky little Linnet is a bird of the hills and moorlands, nesting in larger or smaller numbers in most of the hilly and heathery regions of Northern England and Scotland, as well as on the Irish mountains. In winter it forms flocks, which wander more widely over the lower districts and the sea-shore, but even in winter it is seldom seen in the southern parts of England. In size it is larger than the Redpolls, but smaller than the Common Linnet, and is distinguishable by its slender shape and the greater length of its tail, as well as by its dusky colouring. It begins to build about the middle of May, placing its nest among the heather, or in long grass on broken ground, as well as in low bushes. The chief materials are roots and heathery stems, thickly lined with wool

and a little hair or feathers. Four or five is the usual number of the eggs, which are of the general Linnet type, bluish or greenish-white in ground-colour, dashed, streaked, and spotted with reddish-brown. The name of the bird is descriptive of its single, chirping call-note, while the Latin title calls attention to its yellow bill.

BULLFINCH.

(*Pyrrhula europaea*.)

Hoop, Olph.—This is a beautiful bird, with his black head, tail, and white-barred wings, so strongly contrasted with his clear grey back and bright pink cheeks and breast. As we see him upon the wing, slipping with his mate along the tall brambly hedgerow in dipping flight, the most conspicuous point about him is the white patch above the tail, which seems, like the rabbit's white scut, to show the way to his companion as he flits through the shadowy places. This white signal-flag seems to make him the woodland counterpart of the Wheatear of the open downs, which has an exactly similar adornment. The bull-like thickness of the neck, which has given the bird his name, also gives him a very distinctive and characteristic appearance, but in spite of the

great strength of the neck, and the stoutness of the bill which it supports, there is a finished gracefulness both of form and markings about the whole head of the Bullfinch which makes it as bold and handsome as the Hawfinch's is massive and grotesque. The hen Bullfinch closely resembles her mate, but her colours are a little duller. The bird is well distributed over most parts of the country where there is a fair amount of brushwood and hedge-side cover, and is often seen in gardens, too often, in fact, for the zealous gardener's liking. There is no doubt that when Bullfinches are plentiful they do destroy, like the Great Tit, a quantity of fruit-tree buds in early spring, and it is to be feared that there is not sufficient evidence to prove that the bird only pulls those buds to pieces which contain a hidden caterpillar, and which would be consequently unproductive in any case. The Bullfinch may possibly be only hunting for insects when he destroys the buds, but from the gardener's point of view this is much like burning down the house to kill the rats and mice. Fruit-trees often must be protected against persistent attacks, but it should not be forgotten that later in the year the Bullfinches will capture great numbers of caterpillars for their young, and also destroy the seeds of many troublesome garden weeds, and that to keep them scared away from the trees is, if practicable,

much better than to shoot them. To many people who can treat their gardens for pleasure rather than profit, a quart or two of plums in September seems in any case a small price to pay for a pair or two of Bullfinches in the spring. The nest is built early in May, in a thorn or other hedge, among brambles, in garden shrubs, and various similar situations, generally between four and eight feet from the ground. It is a shallow saucer of slender twigs, cushioned with fine fibrous roots, and sometimes a little horse-hair. It is a stronger structure than it looks ; and is quite different from that of any other bird of its size. The eggs, four or five in number, are often extremely beautiful, being pale blue, with a tinge of green in it, spotted, speckled, or blotched, mainly at the larger end, with rich purple-red, in shades of various depth. The song of the wild Bullfinch is sweet, but low ; the note most often heard is a single, low, sweet pipe, often uttered upon the wing.

CROSSBILL.

(*Loxia curvirostra.*)

The Crossbill is the only member which frequents this country at all regularly of a family of the Finch tribe remarkable for the way in which

the mandibles of the bill cross over in different directions at the end, instead of meeting evenly, like those of other birds. This is a remarkable adaptation of nature for enabling the bird to twist out the separate scales of a fir-cone, and to secure the seed which lies at the root of each. The seeds of fir or larch-cones are accordingly the chief food of the species, which is generally to be met with in fir-woods, or fir-trees in parks and gardens ; but it will also eat haws and wild berries, like some of the other Finches, and the young are fed mainly on caterpillars and soft insects. The Crossbill is not a very rare visitor in winter-time, being generally seen in fair-sized parties, or large flocks ; in some years it is fairly common, and in others scarce, as is the case with many kinds of birds which come to us in winter from Northern Europe. It is not confined, however, to the northern part of the Continent, but is found in most districts where pine forests are common. It nests with some frequency in the extreme north of England, and in Scotland, and more rarely and irregularly further south, always choosing a fir, or some similar cone-bearing tree. The nest is built extremely early in the season, often even in February, and is built of twigs beneath, and moss, wool and hair above, lined with finer materials of the same kind. The four or five eggs are much

like those of the Greenfinch, being greenish-white, spotted and dashed with reddish-brown, but are distinctly larger in size. The bird itself is a little larger than a Greenfinch, and is conspicuous both from the unusual appearance of its bill, and the warm colours and great variability of its plumage. The head and body in the cock are various shades of crimson, or bright red-brown; in the hen these parts are some shade of yellowish-green; and in both sexes the wings and tail are clearly contrasted with the rest of the plumage, being dark brown. The hen-birds, especially the younger ones, are a good deal streaked with a brown on the under-side; and the young birds are a good deal duller and more greyish-brown in colour than the adult cocks and hens, so that a small flock of Crossbills may contain birds of a great variety of appearance. They often betray their presence in the branches of the firs by a loud and noticeable chattering. The so-called Parrot Crossbill is not a separate species, but only a larger and more stout-billed race which has its headquarters in Norway, Sweden and Northern Russia. It is sometimes seen in this country during the winter.

CORN BUNTING.

(Emberiza miliaria.)

Common Bunting, Bunting Lark.—The “common” Bunting in this country is unmistakably the Yellow Hammer, so that Corn Bunting is the best name for this species, as it is generally found in parts of the country where wheat is extensively grown, and is rare, as a rule, in a grass district. It is a dull, ungainly bird in plumage, voice, and habits, and makes itself very noticeable, wherever it is present, by the way in which it posts itself on some bush, wall, fence, or other conspicuous perch, and utters at short intervals its scraping, stammering cry. In many open corn-countries, or countries where corn-fields are interspersed with tracts of heath or down, the dull brown figure and unmusical cry of this Bunting are hardly once absent from ear or eye during a long day’s walk, and then he seems well to deserve the specific name of “common.” Telegraph wires are a favourite seat of his, and the well-known scraping note may often be heard in early summer-time, borne in through the open windows above the roar and rattle of the train, as we travel out of London by the Great Western railway through the Berkshire corn-country, between Slough and Swindon. The note

may be sometimes heard very early in the year, but the bird is a late breeder, the latter part of May and June being the usual time to find the nest. It is placed on the ground in standing corn or other green crops, sometimes in rank herbage in the dykes or "baulks" which separate the fields in countries only partially enclosed, and sometimes at the foot of a small bush among similar tussocky vegetation. It is built of roots, dry stems, bents, and sometimes a little moss, and lined with dry grass and horse-hair, and is usually very well concealed. The eggs, generally four or five in number, have a strong family likeness to those of the Yellow Hammer and the other Buntings, but are generally a good deal larger, as well as easily distinguishable in colour and markings. They are dull, mottled purplish-white, or sometimes brownish-yellow, in ground-colour, very coarsely and heavily marked with deep purple-brown—sometimes almost black—streaks and blotches, which have more or less conspicuously the wavy, scribbled appearance which is characteristic of the eggs of all the British species of the family. In the yellowish variety the markings are often a tawny brown, instead of purple, and without the dark and heavy splashes. Both cock and hen bird are a dull mottled brown in colour, paler on the under parts.

YELLOW HAMMER.

(Emberiza citrinella.)

Yellow Bunting, Yellow Yeldring, Scribbling Lark, Writing Lark.—The Yellow Hammer is a common and resident species of the fields and commons in every part of the country, and one of the most familiar of British birds. In winter, especially in hard weather, it often joins the flocks of Finches and Sparrows which hunt for grain and seeds in the stubble-fields and rickyards, and the cock birds are then the brightest members of these parties. The well-known song may usually be heard towards the end of February, sometimes at first rather faintly and imperfectly, and by that time the Yellow Hammers are pairing, and beginning to settle down in their summer quarters. They begin to nest towards the end of April ; they generally have two broods, and eggs or nestlings may not uncommonly be found in July, and sometimes even in August or early September. As might be expected from the general rule that the song of birds is closely connected with their period of nesting, the Yellow Hammer is also a very late singer, and the pleasant but rather monotonous song is very familiar along the dustiest high roads in the hottest

summer weather, one bird succeeding another by the wayside almost with the regularity of the telegraph posts. In many country districts the song is said to form the sentence, "A very, very little bit of bread, and *no* cheese"; its characteristics are a rapid repetition of a single note as far as "and," followed by "no," much higher and more emphatic, and a lengthy fall on "cheese" again. The general effect of the song is a little like the Chaffinch's, though it is more plaintive in tone. As a rule, the nest is found on or close to the ground, in thorns and rough herbage, on a hedge-bank, or in the lower parts of the hedge itself; sometimes, however, it is in a furze or other thick-leaved bush or tree, at a height of three or four feet from the ground. I have even found it in the outer twigs of a Scotch fir, at a height of twelve or fifteen feet; but such a situation is extremely unusual. It is rather irregular in shape, built of dry stems with a little moss or wool, and lined with horse-hair or fine fibrous roots. The eggs are usually four or five in number; they are bluish or purplish-pink in ground colour, sometimes a little blotched and clouded with purplish-red, and plentifully marked with the long, scribbled, hair-like lines which have given this bird the local names of Scribbling or Writing Lark. There is considerably less yellow in the plumage of the hen

than in that of the cock. The Yellow Hammer may sometimes be mistaken for the cock Greenfinch by an unpractised observer, when the yellow plumage of either bird catches the eye for a moment in flight, especially as they are often near neighbours ; the resemblance, however, is only a very superficial one. The Greenfinch is much the stouter of the two birds in build ; its upper parts are green, whereas the Yellow Hammer's back and wings are warm mottled brown ; and while the Greenfinch's yellow feathers are all on its wings and tail, the Yellow Hammer's are chiefly on its head and breast, as well as being much more extensive.

CIRL BUNTING.

(*Emberiza cirlus.*)

The Cirl Bunting is a local but fairly common species in many of the southern parts of England, especially in the neighbourhood of the Thames valley. It seems to be fairly well known in Wales and the West Midlands, but is rare in the central, eastern, and northern counties, and almost absent in Scotland. It is probably one of the birds, however, which might be found in a good many fresh localities by careful observation. It was first identified as an English species by Colonel

Montagu, near Kingsbridge, in South Devon, in 1800. It is not a difficult bird to recognise; probably the note will first attract the attention, and this will be traced to a bird of the Yellow Hammer's size, perched somewhere in the upper branches of an elm or other good-sized tree. In such a situation it is difficult to see the colours of a bird's plumage, and it is the way in which the Cirl Bunting sits and repeats its song in these upper boughs, together with the character of the song itself, which helps to identify it best. The song is a strong, repeated trill on the same rather high note, abruptly beginning and ending; it comes, in fact, extremely close to the Yellow Hammer's song, without the two last notes—"no cheese"—which are the most musical and characteristic part of it, but is thicker and slower in delivery, being thus more closely akin to the stammering cry of the Corn Bunting. It is heard far on into the summer, like the songs of its two relatives. The Cirl Bunting is warm mottled brown on most of the upper parts, much like the Yellow Hammer; there are also some yellow markings about the eye and throat, and, in the cock bird, also on the belly; but the crown of the head is brownish like the back, while there are conspicuous black patches about the face, so that this species is a good deal less of a gilded bird in

its general appearance. The nest and eggs closely resemble the Yellow Hammer's. The nest is built on, or close to, the ground, in or at the foot of a bush, and is made of the same dry stems and moss, with a lining of fine roots and horsehair. The eggs are also purplish-pink, with black streaks and scribblings; they are often rather shorter, rounder, and more flat-topped in shape than a typical Yellow Hammer's, and with coarser and thicker markings, but these differences are not sufficiently pronounced to give a certain means of identification without a view of the parent bird. This is a resident species, and nests during May, June, and July. It is a bird which is particularly fond of the fringes of the chalk hills.

REED BUNTING.

(*Emberiza schoeniclus*.)

Reed Sparrow, Black-headed Bunting. The true Black-headed Bunting, however, is a bird of South-eastern Europe which has been seen less than half-a-dozen times in Britain altogether.—The Reed Bunting is the water-loving species of the family, and is not likely to escape observation by any of the sedgy-pool and stream-sides which it haunts. The cock is a conspicuous bird in every

July 17, 1911. Singing in top of willow on bank of
Hammes near Maidenhead. Bessie

way, with his black crown and cheeks, big black patch on the throat and breast, white collar and mouth-stripe, and back, wings and tail of conspicuously mottled brown. He is fond of clinging to some tall osier stem or other marshy growth, and grating out his loud stammering call, more varied and broken than that of the Corn Bunting, and ending with a sort of sibilant or hissing note. The hen bird is marked less noticeably; she is mainly mottled reddish-brown, with the black and white markings about the head and throat much more mixed and indistinct. Though resident in this country as a species, the Reed Bunting shifts its ground a good deal in the winter, and the black patches of the cock's plumage are then replaced by duller brown. As spring arrives many of the Reed Buntings leave the larger bodies of water and disperse into their breeding-places, where the new vegetation begins to provide them with cover for nesting. The first nests with eggs are to be found from about the middle of April; they are built on or very close to the surface of the ground, or, in some cases, the mud or water, among dead reeds, or dead and green ones mixed, or the thick growth of meadow-sweet, pink valerian, sedge-grass, and numerous other kinds of rank, luxuriant vegetation which fills the osier-beds and overgrown stream-sides which the birds love

to haunt. It is solidly but rather untidily built of dry reeds, moss, mixed stems, downy reed-plumes, and such similar materials, and is chiefly lined with horse-hair, the reed-plumes and various fine vegetable fibres being also used. The four or five eggs have the characteristic scribbled appearance of all their tribe, but are easily distinguished by their ground-colour, which is a clear drab-brown, sometimes inclining to a reddish or greenish tinge, and much resembling the ground colour of the Chaffinch's egg. The scribblings of dark and medium brown are often very intricate and beautiful, even more so than those on the eggs of the Yellow Hammer. This is one of the birds which often pretend to be hurt or lamed in order to distract attention from the nest or young.

SNOW BUNTING.

(*Plectrophenax nivalis*.)

Snow-flake, Mountain Bunting, Tawny Bunting. —The Snow Bunting is not a very familiar British species, chiefly occurring in winter flocks in those northern and eastern districts of the country which are the natural resort of birds which reach our shores, as the great majority of the Snow Buntings do, from the most northern parts of Scandinavia

and Russia, and the Arctic regions beyond them. But a small number of birds nest regularly on some of the highest Scotch mountains, as well as in the Shetlands, and there seems reason to believe that they are increasing. They nest in Britain on the highest stony slopes of the mountains; the nest is described by Mr. Howard Saunders as being built of "dry grass and moss, lined with a few hairs and many feathers—especially those of the Ptarmigan." The eggs, four to six in number, are "greyish-white, spotted and blotched with brownish-red and purplish-black." The Snow Bunting varies to a remarkable degree in appearance, the young birds only gradually acquiring the adult plumage, which is chiefly dark brown or black above, with a large white patch on the wing, and the underparts white. A good-sized flock of these birds may contain a great number of different varieties of plumage, from the complete suit of mottled brown of the immature bird to the full adult markings. The amount of white thus varies very much in different individuals, but it is almost always sufficiently extensive and conspicuous to make the Snow Bunting easily recognisable. The young birds with no white on them were formerly believed to be a separate species, and called "Tawny Bunting."

STARLING.

(Sturnus vulgaris.)

Stare, Sheep-stare.—The Starling is one of the most remarkable as well as one of the commonest British birds. Thirty or forty years ago it was seldom or never seen in many western districts of Cornwall, Wales, and Ireland, where it is now abundant ; and even since 1900 there has been an immense increase in the numbers of starling flocks in many parts of the country, accompanied by a change in their feeding-habits which have made them the dread of gardeners and fruit-growers. The Starling has long enjoyed the reputation of being almost entirely an insect feeder and a trusted farmer's friend, in spite of a certain amount of damage to apples, cherries, and other tree-fruit in its season ; but now, though the good that it still does by destroying insects is enormous, its taste for fruit has become so pronounced that a crop of ripe cherries is often entirely devoured by a flock of Starlings in the space of a few hours. The same increase in numbers and voracity has been observed during the last few seasons in Belgium, and probably in other neighbouring countries ; and there seems no doubt that a great westward movement of Starlings is taking place over a region

extending from Siberia to Ireland. The reason of this remarkable overflow of numbers we cannot guess, though there is a striking similarity to some of the great, and equally unexplained, human migrations from the same borderland of Europe and Asia, which are recorded in history ; but we are helped by a certain variation in the Starlings of the eastern and western regions to measure the stages of the movement, and careful observation along these lines will probably yield much information as well as interest. Nearly everybody knows the metallic gloss or sheen which plays upon the Starling's plumage during the breeding season, and makes it a brilliantly coloured bird, in spite of its plain feather-pattern of black with small buff spots. Observations have shown that in the typical Starling of Western Europe the gloss upon the head is green, while in the Siberian bird it is purple, and in the intermediate race of Central Europe it is purple and green mixed. It is thus possible to distinguish the origin of the Starlings to be seen in any neighbourhood, and careful observations in different parts of the country would probably show that the birds now nesting in the more eastern parts of the country are of the wholly or partly purple-headed races, while those which have of late years made their appearance in the extreme west are the displaced green-headed birds of the

original English race. This great increase in the number of foreign Starlings may not prove permanent, but in the meantime there are hardly enough suitable nesting-places in many districts to go round, and Woodpeckers, Redstarts, and other birds which also nest in holes suffer great disturbance in their attempts to rear their broods. Unlike that other familiar household bird, the Sparrow, the Starling breeds in the depths of the woods as well as about our houses, but a few pairs attached to our homes add a great interest to the inner circle of familiar bird life. A Starling is as fond of singing on a chimney-pot as on a tree, and its own odd mixture of piping, whistling, and chattering sounds may be heard in fine weather at all times of the year. It is also well known to be a wonderful natural mimic of other birds' songs, and it is very amusing and interesting to pick out the borrowed items in its *répertoire*, as it delivers them like a living phonograph, and with much of the same throatiness of tone. Before and after the breeding season enormous flocks of Starlings congregate to roost in the same thicket or cover, the whole gathering often numbering hundreds of thousands, and collecting from an area of many miles. Before they seek their final destination smaller flocks of some hundreds or thousands of birds often muster in the tree-tops at some spot a mile or more away, and fill the air

with the deep murmur of their united cries, before they finally take wing simultaneously, with an even louder surge of sound, to cover the last stage to their roosting-place. The precision with which such great bodies of Starlings wheel and turn in the air at the same moment is very wonderful to see. So also in a lesser way is the peculiar head-long, twisting plunge with which individual birds will finally drop into a shrubbery of laurels, or some other such dense cover, which is resorted to by the score or more of birds which may be attached to some particular house and garden. The Starling generally begins to build early in April, and chooses almost any hole which has an entrance of suitable size, either in buildings, trees, or rocks. It is fond of appropriating the holes bored by the Green Woodpecker. It sometimes extends its habit of keeping close company with Rooks and Jackdaws in the fields even to its nesting arrangements; the nest is occasionally built in a hole in the lower part of a Rook's nest, and Starlings' eggs may even be found among those of the Jackdaw, though I know of no instance of young Starlings being successfully reared up in such a cuckoo-like situation. The nest is loosely but warmly built of straw, thin bark, wood-shavings, dead leaves, and a few other such materials, sometimes with a few feathers in the lining. Four to six eggs are laid,

of a beautiful pale blue, without spots. They vary little in colour, but a good deal in size and shape.

CHOUGH.

(*Pyrrhocorax graculus*.)

Cornish Chough, Red-legged Crow.—As an inland bird the Chough is seldom seen, being only resident in a few of the wildest and rockiest regions of Wales, and possibly Scotland and Ireland. On the cliffs of the sea-coast it is also a diminishing species, owing to the persecution of man, and also to the intrusive habits of the more aggressive Jackdaw ; but it is still found on some of the rocky precipices of Devon and Cornwall, and is not uncommon in parts of Wales and Ireland. It is a slightly larger and more slender-looking bird than the Jackdaw, this appearance being increased by the long, curved bill of bright coral-red, the same colour as the legs and feet. The plumage is glossy black throughout. Its note is as much higher and shriller than the Jackdaw's as the Jackdaw's is compared to the Rook's. The nest is built in some hole in the precipices, or in a ruin, and is made of sticks, lined with wool and hair. The four or five eggs a good deal resemble the Jackdaw's, being greenish or yellowish-white

in ground-colour, not very thickly spotted with dull brown and pale green and grey ; but they are altogether fainter and more faded in appearance, and the ground is a distinctly dirtier greenish or yellowish shade, instead of a clear, clean tint of light greenish-blue. The similar bird with yellow beak, instead of red, which is sometimes seen in aviaries, is the Alpine Chough (*Pyrrhocorax alpinus*), an interesting and conspicuous bird of the Swiss mountains.

JAY.

(*Garrulus glandarius.*)

Jay-pyat.—In spite of much persecution at the hands of gamekeepers, the Jay is a woodland bird which is still to be seen and heard in some numbers in most parts of the kingdom. He has undoubtedly the family failing, like most of the Crow-birds to which he belongs, of a taste for eggs and nestlings as an occasional relish to his diet, but the sum total of his ravages among the pheasants' nests and coops at breeding-time is rarely anything considerable, smaller birds being more in his own particular line. Considering his character in this respect, it is an amusing and edifying spectacle to see him leading the chorus of shocked abuse with

which all the little birds of the wood greet the appearance in daylight of a strayed and blinking Owl. The loud, harsh, screeching note of the Jay is more familiar than his visible form, but he is easily to be recognised by the large white spot above the tail, and his alternately floating and dropping flight, as he leaves one copse for another, or crosses a ride or clearing in the wood. Seen close at hand, he is a very handsome bird, with his mottled, erectile crest-feathers, bright blue hackle in his black-and-white-tipped wing, black moustache-marks over a white throat, and general plumage of clear brown above and fawn below. The white tail-spot in flight gives him the same appearance as the Wheatear or the Bullfinch. The nest, too, is often much like a magnified Bullfinch's, when it is a rather loose affair of dry black twigs, lined with brown fibrous roots. The cup, however, is a deep one, unlike the Bullfinch's shallow saucer. At other times it is a more massive and well-built structure of sticks. It is generally placed between eight and twenty feet above the ground, in a variety of situations, such as in a thick thorn-bush, or the top of a thick, dark hazel thicket, or in an evergreen spruce or fir-tree, or resting against the bole or in a fork of a smooth beech-tree. In this last situation the nest is apt to be particularly loose and slight. There always seems a peculiar attraction

about the Jay's nest, with its root-lined cup ; one feels that any bird could make a comfortable nest-lining out of the usual wool and feathers, but there is something uncommonly clever and craftsmanlike about this smooth hemisphere of little shiny root-fibres. Six is the common number of the eggs, which have a strong look of one variety of the Blackbird's. They are rather larger than the biggest Blackbird's, finely and closely freckled all over with green, the freckles sometimes coalescing into a thick band or cap at the larger end. The green is of a browner shade than that on the Blackbird's egg. Sometimes the freckles are thin enough to show the grey-green ground-colour clearly beneath them, and often there is a long black hair-streak at the larger end. The nest is generally finished from the beginning to the middle of May.

MAGPIE.

(*Pica rustica*.)

Pyat, Mag.—The Magpie is one of the cleverest of a particularly clever family, but it has not learnt to make itself a less conspicuous mark for the gun by changing its skin or its spots, nor, which might be easier, to build a nest of a slightly less noticeable pattern. In many game-

preserving parts of the country it is therefore rare ; but it is still one of the commonest birds on the moors of Wales and Cornwall, and by no means uncommon in other parts of the west and midlands. It is very numerous in Ireland, where it first appeared or (more probably) was introduced early in the seventeenth century. It is less exclusively a woodland bird than the Jay, and its nests are to be seen as often in hedgerow trees and isolated thickets as in lofty woods. It begins to build early in April, some weeks before the expanding foliage conceals the huge and conspicuous nest, which is placed at any height from the ground, whether in the top of a large elm or beech, or in bare moorland countries, in a diminutive bush barely large enough to lift it off the turf. Where other cover is wanting, the Magpie has even been known to build in gooseberry-bushes. The nest is a solid basin of sticks and clay, roofed with a lighter dome of sticks, and is often as much as three feet in height. An outer framework of sticks is succeeded by a substantial layer of clay, and the cup so formed is lined with roots and grass. Above this comes the large, rough dome of interlaced sticks, with a small hole left at one side. The Magpie, being a rogue itself, thus seems to know enough to protect its conspicuous home against other winged marauders.

Six eggs are usually laid, sometimes more ; they vary from the size of an unusually large Blackbird's to half as large again, and are easily recognisable, in spite of a good deal of variation among themselves. They are a clearer greenish-white in ground-colour than the Blackbird's egg or the Jay's, and are thickly spotted with green, as well, sometimes, as with fainter tints of grey. Their variations of appearance chiefly depend upon the greater thickness or fewness of the spots. The Magpie's usual habit is to build a fresh nest each year in the neighbourhood of the last ; and as it takes several seasons' decay to destroy these solid erections, a series of four or five in successive stages of disrepair, from the trim new nest of the year to the clod-like core of the oldest ruin, may often be found in close proximity in the same field or thicket. These birds destroy a great number of slugs, snails, and insects, as well as the eggs and young of other birds. It is probable that the common belief in their destructiveness to the poultry-yard and pheasant-rearing field is much exaggerated ; at any rate, in Norway they are protected like Swallows at many of the farms, and may be seen there preening their feathers among the pigeons on the roof in perfect tameness.

JACKDAW.

(Corvus monedula.)

Everyone knows the Jackdaw wild, even if they have not the pleasure of the acquaintance of a tame one, and, as might be expected from his excellent capacity for looking after himself, the Jackdaw is one of the birds which are notably bettering their position, and extending their range at the expense of others. The particular species which has most suffered at the Jackdaw's hands is his own near relative the Chough, which has disappeared from several stretches of seacoast cliff since the Jackdaw's comparatively recent appearance there. Jackdaw and Magpie run each other very close for the position of second most intelligent member in this country, of the most intelligent of all bird-families, the great tribe of Crows. The first place among British competitors can scarcely be refused to the Raven, though the world's championship would undoubtedly be held by the Indian House Crow. Next to the Rook, the Jackdaw is the most gregarious of his tribe; but the greater difficulty of securing the nesting situations which he needs has made him tolerate isolated quarters at nesting-time if he cannot find a suitable hole in the near neighbourhood of the

local Jackdaw settlement. The Jackdaw nests later than the Rook, and has seldom eggs till the latter half of April. He builds a large nest of sticks in any convenient hole or crevice, whether in a tree, a quarry, or cliff-face, or a church-tower or ancient ruin. In the course of years the accumulation of sticks in some of these situations is sometimes enormous. On the other hand, he will sometimes add little but a lining to a snug dry hole [in the crumbling wood of a tree, where a stick foundation is not needed. The nest is mainly lined, like the Carrion Crow's, with locks of sheep's wool, but dry grass tussocks, bits of soft bark and other similar odds and ends may also find a place. The eggs are usually five in number, and in agreement with the great general rule that eggs laid in holes are paler in colour than eggs which are laid in open situations, and need therefore greater concealment; they are a good deal lighter in colour than the Rook's or Crow's. They are a very pale and delicate greenish-blue in ground-colour, blotched, spotted, and speckled with several shades of deep green and greenish-brown, and clear ash-grey. When feeding in flocks with Rooks, as they so often do, Jackdaws can be distinguished by their quicker, more fluttering flight, even more easily than by their smaller size; but it is rarely long before they utter their garrulous, conver-

sational cackle, which at any time presents a great contrast to the Rook's grave and responsible caw.

RAVEN.

(*Corvus corax*.)

Corbie, Corbie Crow, names also applied to the next bird.—Though it has many human enemies, and has been driven in the last half century out of many of its ancient haunts, the Raven is happily in no immediate danger of extermination in Great Britain. Woods as well as crags and mountains were formerly its natural strongholds, but at the present day it has probably been driven from all its inland haunts of thirty or forty years ago in the woods of Essex, the conspicuous tree-clumps on the downs of Wiltshire and Sussex, and such similar localities in the more lowland parts of the country. But it still maintains itself along the loftiest sea-cliffs of the South and West, from Kent to Cornwall, as well as in Wales, Ireland, and Scotland, while as an inland bird it may be seen almost at any time with a little luck and patience on the Pennine heights and the mountains of Wales and the Lake District. As everyone knows who has kept it as a pet, it is a bird of wonderful cleverness, and it has a stark piratical soul which,

added to its pre-eminence in size, has made it the unchallenged sovereign of the great tribe of Crows, and the fitting emblem in early days for the banners of the Norse sea-rovers. In defence of its nest it does not shrink from attacking even the Eagle, and in an ærial contest between Ravens and Buzzards, which is one of the noblest spectacles which British bird-life can show, the big, round-winged Hawk is no match at all for the less bulky, but gaunt and sinewy, Raven. Though the Raven at close quarters looks nearly twice the size of the Carrion Crow (or the more familiar Rook), it is difficult to judge the dimensions of a bird seen flying high in air among the great spaces of the mountains, and the Raven is then best identified by its far more slow and masterful wing-beats, and also its cry. This is a kind of deep-throated bark, a great deal sharper as well as deeper than the snarling "krar, krar," of the Carrion Crow. The Raven still occasionally nests in a tree, but more often on some ledge, or in some rift or crevice of the cliff or mountain side. The same nest is often used for many years, and the annual additions make it a huge structure. Building begins in February ; the foundation is of sticks, and the inside is thickly cushioned with wool, tufts of hair and roots, and other casual materials. Four or five is the full number of the eggs, but

probably owing to the birds being much harried and persecuted in this country they seem often only to lay three. The eggs are also often of very small size, not much larger than a large Carrion Crow's, and they rarely seem to reach the fine proportions and bold markings of specimens from such less-disturbed regions as Spain or Greenland. They are exactly like Carrion Crows' eggs in marking, exhibiting the same variety of types, and the Carrion Crow's description and illustrations will hold good in all respects except for size. Ravens will eat almost anything of an animal nature, alive or dead, and are capable of a vegetarian diet at a pinch. They are chiefly persecuted in this country (apart from collectors' demands for eggs, and pet-keepers' for young) on account of their killing young lambs, and even sickly ewes, at lambing-time on the coast and mountain sheep-farms.

CARRION CROW.

(*Corvus corone.*)

Corbie Crow.—The Carrion Crow, like the Magpie, has been almost exterminated as a breeding species in some of the more highly preserved parts of the country, but it is still fairly well-known, or even common, over the greater part of

England and Wales, and in the south of Scotland. Its plumage is entirely black. Further north, and in Ireland, it gives place almost entirely to the Grey, or Hooded Crow, a closely related species which divides up the whole of Europe and a large part of Western Asia with it in a most curious manner, rarely invading the territory of the other species, though where the boundaries of the two meet they will readily interbreed. The Carrion Crow is a sort of meaner Raven, and is also a bird of great interest on account of his intelligence and calculating savagery of character. He will eat, broadly speaking, anything. If he confined himself to the varied though gamey diet indicated by his English name, no one would have much of a quarrel with him ; but he has also a great taste for all kinds of eggs and chicks, and is a great enemy of the flock-master, being always ready to make short work of a feeble or wounded lamb, or even sheep, being especially fond of picking out his victim's eyes. His watchfulness and intelligence are extreme, and he has shown his adaptability in an unusual way by settling in considerable numbers in the London suburbs, where men with guns are scarce, and there is an abundant and varied table on every rubbish-tip, as well as a liberal supply of bread-crusts and young Sparrows in more central and fashionable quarters, such as

the parks and squares. There, as elsewhere, he has shown himself a terror to his respectable relatives, and London's last rookeries have suffered a great deal from his inroads at nesting-time. It is believed that he pairs for life, like any Christian—a surprising trait in one so abandoned ; at any rate, pairs of Carrion Crows may be seen very early in the year quartering the countryside for homes for the breeding-season, and filling unfamiliar places with their harsh, grating croak. They are not, however, nearly such early nesters as the Raven or the Rook, not beginning to build till the beginning of April at earliest. The nest is generally built in a tree, sometimes at a great height, but often not more than twenty feet from the ground, or even less ; in mountainous country it is often built on a ledge or buttress of a steep face of the rock. It is a large and solid structure of sticks, thickly lined with wool and hair ; often it is very conspicuously situated, but sometimes it is flattened against the larger limbs in a fork of a tree so as to be well concealed from the eye. Four or five is the usual number of the eggs ; they are greenish-white in colour, blotched, spotted, and speckled with various shades of green, greenish-brown, and paler tints of grey. They vary a great deal in markings ; the two eggs illustrated represent nearly the extremes of dark-

ness and lightness, but there are some paler yet, and any number of varieties between the two. The eggs are difficult to distinguish from those of the Rook ; their average size is a little larger than the average size of the Rook's egg, and the markings have a somewhat stronger, bolder, and more decisive appearance, but the only way of distinguishing them with certainty is by means of the nest and the parent birds. The nest is always, or almost always, solitary (except for old nests of previous years), while a solitary Rook's nest is rare ; the Crow's nest is chiefly lined with wool, and plenty of it, while the Rook rarely uses this form of bedding. As for the birds themselves, the Crows go alone, or pair by pair, the bases of their bills are feathered, and their note is a snarling "krar, krar" ; the Rook's caw is fuller and deeper in sound, it has a bare white patch at the base of the bill, and it is much more gregarious in its habits. The Crow has also a sinister-looking way of posting itself on some prominent bough with its shoulders hunched, and its lean, powerful head and bill thrust forward on the watch, in a fashion quite different from the Rook's honest perching habits. With a little observation the birds are easy to distinguish.

HOODED CROW.

(Corvus cornix.)

Hoodie, Grey Crow, Royston Crow.—As a breeding species, the Hooded Crow is chiefly found in the north and west of Scotland and in Ireland, where it takes the place of the Carrion Crow of the rest of the kingdom. But it is also common as a winter visitor from Norway and northern Europe in the east and south-east of England, and often wanders along the coast some distance further down the Channel than its inland range. Its body is light grey, and its head and throat, wings and tail, black ; the name “hooded” refers to the black cap above a grey back and breast. These grey tints of the body, the very livery of the frost and mist, make the Hooded Crow appear the typical embodiment of winter desolation and savagery, and the German name of “Fog-Crow” is the best that could be conceived. Its note is a harsh “krar, krar,” like the Carrion Crow’s, but as a rule a little slower and more spiritless in tone. Its diet is as varied as that of the kindred species, but it is even bolder and more cruel in its attacks on living creatures. The nest is usually built in late April or May, either on steep rocky hillsides, or in trees, and is similar to that of the Carrion Crow described

above. The eggs are also practically indistinguishable, without a sight of the parent bird. It generally arrives in the east of England towards the end of October, and leaves again in March, but the date of these movements, as also the numbers in which it comes, depend much upon the severity of the weather in its more northern haunts.

ROOK.

(*Corvus frugilegus.*)

Crow.—The Rook is one of the best-known of all our birds, and a well-stocked rookery is one of the most typical features of an English village. The bird has a marked liking for settling in the neighbourhood of human dwellings, probably because it gets its living most easily on cultivated ground, but rookeries are by no means uncommon in deep or isolated woods. The Rooks leave, as a rule, their nesting-places at the end of the breeding-season, and take up their quarters in large flocks in some dense woodland, often miles distant from their daily feeding-grounds, to and from which they may be seen passing in long streams high in air about sunrise and sunset in the autumn and winter days. As winter goes on the nests are visited more often, and early in February they fall

to building in good earnest, though it is noticeable that the rookeries in the distant and exposed woodlands are often two or three weeks more backward than those in villages and gardens. Some of the old nests are repaired, and other new ones made; and in an early year, before the end of February we may see the black tail of the sitting bird comfortably poked out over the edge of the black nest in the tops of the blossoming elms. The sticks for the nest are torn from trees, as well as collected upon the ground, and it is very "amusive," as Gilbert White says on another occasion, to watch the portly birds tumbling and bouncing among the smaller branches as they endeavour to wrench off the stout sappy branchlets with their bills. Small twigs and earthy grass-tufts go to make the inside layer, and the lining is of dry grass and leaves. The four or five eggs are various tints of brownish and greenish-white in ground colour, very variously spotted, blotched, and speckled with green, ash-grey, and dark greenish-brown. Two distinct and representative varieties are illustrated, and it is not uncommon to find a lighter type closely resembling the paler Carrion Crow's egg in the same plate. Often the eggs are indistinguishable from those of the Carrion Crow, apart from the nest and bird; but their average size is smaller, the spots are often smaller, thicker, and more confused, and there is

more brown and less green in their general colour. When a dozen or more of Rooks' nests are packed into a low and accessible tree they are an extremely interesting sight, as seen from among them, or above. The mass of old and new nests is solid enough almost to walk upon, and young corn is growing from grains dropped by the birds in the leaf-mould of the old, flattened dwellings, while each of the trim, new, brown cups has its due proportion of dappled, glossy eggs, in all sorts of different shades and patterns, and the big, shining birds are wheeling round the boughs in outraged dignity and alarm. Then, later in the season, when everything near the nests has got very messy and unpleasant, there is the consolation of the solemn, dusty-feathered young birds—always with faces exactly like somebody one knows. Occasionally a wandering or outcast pair of Rooks may be found nesting by themselves. The chief food of the Rook is insects injurious to the farmer, but in some districts, possibly owing to the succession of dry summers since 1893, which have made it difficult to bore the hardened earth, they have unfortunately taken to eating grain as well, or even to sucking eggs, in the favourite manner of the Carrion Crow. The Carrion Crow is a great enemy of their own, from his attacks upon the rookeries when there are eggs or nestling birds.

SKYLARK.

(Alauda arvensis.)

Laverock.—One of the most famous of English song-birds, and one which may be heard singing almost throughout the year, and in summer by night as well as by day. It sometimes sings on the ground, and has been known to do so on a tree. Its brown, mottled back and brown-speckled breast are well-known even in towns, from its being so often kept in cages that ought never to hold anything of a freer nature than a silkworm; and when seen wheeling and flitting close to earth it may be easily recognised by the complete pale margin—a sort of silver lining—to the feathers of its wings and tail. Though the Skylark is resident as a species, a great deal of migration goes on among individual flocks all through the winter months. Its nest is built on the ground in the latter part of April, and is well concealed by the colour of the dry grass of which it is entirely made, even when it is set in a shallow depression, or hoof-print, in a closely-grazed pasture-field. It is also built among long grass tussocks, corn and other green crops, or among the clods in a ploughed field. Three to five eggs are laid, greyish-white or creamy grey in ground-colour, thickly freckled

with deep reddish-brown, and often with fainter underlying spots of pale lavender-grey. The spots and frecklings vary a good deal in density, and often coalesce into a conspicuous band round the larger end. The eggs are larger than a Robin's, often a good deal larger, while the Meadow Pipit's, with which they might be confused from the character and situation of the nest, are both considerably smaller in size and a good deal dusker in colour. The Skylark occasionally does some damage to growing wheat, but its food chiefly consists of insects, worms, and the seeds of various weeds.

WOOD LARK.

(*Alauda arborea.*)

The Wood Lark is a much more local species than its better known relation, being commonest on the hills which bound the Thames Valley, and on the chalk range which runs thence into Buckingham and Hertfordshire. It is found in other scattered localities in the more southerly parts of England, but is rare to the north of the Trent. It is also an extremely sweet singer, and is to be heard almost as constantly as the Skylark, by night as well as by day ; but its song has not the same extreme vigour and vivacity of tone as the

Skylark's, and it delivers it in a rather different manner in the air. It does not soar so high, and has a more hovering method of descent, in wide circles or spirals. It also keeps more to the neighbourhood of copses and thickets on dry, sloping ground, and more often begins and ends its flight on the top of a tree, in the manner of the Tree Pipit. The Tree Pipit makes, however, much shorter and more regular ascents and descents, like a sort of fountain with periodic jets. The Wood Lark is very like the Skylark in colour, but it is rather smaller, has a much shorter tail which increases the apparent inferiority of size, and may also be distinguished at close quarters by the much more prominent pale stripe over the eye. The nest is built on the ground, usually in some less open situation than the Skylark's, as, for instance, in taller, tangled grass, or at the foot of a small bush ; it may, however, be found in a depression on the level turf. It is made chiefly of dry grass, but may have a little moss in it ; it is said to be found as early as the middle of March, but April is the more usual time. The eggs are the same size as an average Skylark's, pale greenish-white in ground-colour, thickly speckled with fine dots of dark reddish-brown and fainter specks of grey. The spots do not run together into a dense mass, as in the Skylark's egg, but are all precise and

distinct, as if they had been separately pricked in with a tattooing-needle ; and this point of difference makes them easily distinguishable. Sometimes they form a thicker zone or band at the larger end, but the same separate appearance is still preserved. The Wood Lark is a resident species ; in winter it forms flocks, often in company with the Skylark.

SWIFT.

(*Cypselus apus*.)

Black Swallow or Martin, Devil-Screamer, Devil-ing, Skeer-devil, Screech Martin, Cran.—In spite of its Swallow-like appearance and habits, the Swift is fundamentally different in structure not only from the tribe of Swallows, but from all the “passerine” birds with which we have so far been dealing, and it now introduces us into the new and much smaller order of the Picariæ, or Woodpecker-birds, so called from one of the most typical families it contains. The Swift is one of the last birds to come, and the first to go, and its shrill scream and fiercely sweeping flight are among the most typical sights and sounds of the hottest summer weather. The end of the first week in May is about the average date for its

arrival, and it usually vanishes about the tenth of August. Its nearest British relative is the Night-jar, and this bird arrives even later ; on the other hand, it does not leave us till September. We do not yet know enough to explain with certainty the reason of those smaller differences in habit, but it is clear that, broadly speaking, both these insect-eating birds can only subsist in this climate at the time when the supply of insect life is at its highest summer level. The plumage of the Swift is a dull, sooty black all over, except for a small greyish patch under the chin. The immense length of the scythe-shaped wings, and the shortness and feebleness of the legs and feet, make it as helpless upon the ground as it is perfectly at home in the air, and it has very great difficulty in rising again, if by some mishap, such as striking a telegraph wire, it finds itself stranded on *terra firma*. From the mouth of its nesting-holes it takes wing with a downward plunge. It breeds in holes and crevices under the roof of buildings, from castle towers to low thatched cottages, and in other holes in masonry, or the sides of a cliff or quarry. The nest is a small, flat heap of straws, feathers, and dusty rubbish, partly glued together by the glutinous moisture of the bird's mouth. Such of the nesting material as the Swift does not find in the selected hole it snaps up upon the wing. Two

pure white eggs are laid in the early part of June, a long oval in shape, a little larger than a Skylark's or large House Sparrow's in size, and dull and unpolished in surface. The typical shape and average size of this and all other white eggs described in this book are represented in special plates of outlined drawings.

NIGHTJAR.

(*Caprimulgus europaeus*.)

Fern Owl, Goatsucker, Eve-churr, Night-hawk.
—The Nightjar is one of the birds which are far more commonly heard than seen, and even to the ear it rarely makes its presence known except in the evening twilight. It haunts wooded commons and the glades and clearings in woods, and in many such situations its strange “jarring” or “churring” murmur, rising and falling a few tones like the buzz of a threshing machine, which it much resembles on a small scale, is a familiar feature of the dusk of a warm midsummer evening. It may also be seen in the twilight swerving and wheeling with great activity and in perfect silence in pursuit of insects round the boughs of a tree against the darkened sky. Depending for its food upon a plentiful supply of flying insects, it delays its arrival till almost the last of the summer birds,

and rarely appears in its breeding quarters before the middle of May, while it is not uncommon to find fresh eggs in July. No nest is made, and the eggs are laid upon the bare ground, or on the natural carpet of moss or dead bracken-stems which covers it in their chosen haunts. The eggs are two in number, of the same shape at either end, creamy white in their ground-colour, and very beautifully mottled and clouded with deep greenish-brown and lighter lilac-grey. When, as is often the case, they are laid on ground thickly sprinkled with round flint pebbles, the similarity of appearance makes them very difficult to discover; and the same effect of concealment is secured by the likeness of the delicately mottled brown plumage of the sitting bird to her surroundings of dry fern-stalks and furze needles. But in this case, as in many others, it is clear that the protective likeness, and consequent security of the eggs, is only partial and imperfect, for they are distinctly noticeable and conspicuous when they are laid upon a dry brown carpet which happens to be devoid of scattered whitish pebbles. When flushed from the furze or heather, the Nightjar generally flits off in absolute silence, like a brown apparition; when perching on a bough of a tree, it almost invariably settles lengthwise to the bough, instead of across it in the usual bird attitude. It has an enormously

wide mouth, set with a row of bristles, and one very close observer, Mr. Edmund Selous, believes that it "engulfs" its food by this arrangement, while flying through swarms of small insects, precisely as a whale sucks down minute sea-creatures by means of its similarly enormous mouth and fringing rows of whalebone. It has also a very curious claw to the middle toe, notched underneath like a saw, and the use of this has still to be discovered, though it is conceivable that it uses it to seize larger insects before transferring them to its mouth. Though the Nightjar is exclusively an insect feeder, it is still killed off by the most ignorant and backward of gamekeepers as a kind of "hawk" or "owl," with neither of which families it has any connection whatever. The curious idea of its habits expressed in the name "Goatsucker" and the Latin generic title, is of course also absolutely unfounded, though it has been prevalent for many centuries and in many different lands.

WRYNECK.

(*Lynx torquilla*.)

Cuckoo's Mate, Snake-bird, Barley-bird, Rinding-bird.—This curious and interesting climbing bird

is fairly frequent, though hardly abundant, in most well-wooded districts in the southern parts of the country, and in April and May it makes its loud, repeated, shouting cry one of the most conspicuous bird-voices of the neighbourhood. It sometimes arrives even in March, and is generally to be heard in full voice before the middle of April, about the same time as the Cuckoo ; it has thus gained its country name of the Cuckoo's Mate. The names of Barley-bird and Rinding-bird also refer to the season of its arrival, since barley-sowing and oak-bark stripping are in progress about the same time ; but other species among the spring immigrants are also called by the former name in different localities. Its loud and conspicuous cry is rather like the Green Woodpecker's ; but it is more shouting and less ringing in tone, and the bird seems to take pains to make each note as distinct, vehement, and unmistakable as it possibly can. Owing to its way of hiding itself among the limbs of the trees, and the resemblance of its plumage to the colour of their bark, it is not an easy bird to get a good sight of, even when it is heard at unmistakably close quarters, and it generally needs a good deal of careful and patient stalking. The plumage of the upper parts is very beautifully pencilled with greys and browns, in the same way as the Night-

jar's and Woodcock's, and it has a peculiarly flexible neck which it is never tired of twisting into odd and restless contortions, as it slips about its insect-hunting business. This is one reason for its name of Snake-bird, and its recognised English title bears reference to the same peculiarity. If caught in the hand upon the nest, which it is extremely unwilling to leave, its attitudes are sometimes perfectly extraordinary, while at other times it will lie absolutely motionless, and apparently simulate death. It lays its eggs about the end of April in a hole in a tree or post, or, much more rarely, in a bank; a casual layer of the soft, rotten wood generally found in the hole is the only nesting-material. It is one of the most interesting of the birds which will often occupy an artificial nesting-box when fixed to a tree in a garden, and it is advisable to bear this taste in mind, and to cover the bottom of a box intended for a Wryneck with some crumbled touchwood, or a sprinkling of sawdust. The eggs are from six to ten in number, rather larger than a Robin's, and pure, glossy white. When disturbed upon the nest the Wryneck often utters a vigorous hissing noise; this is another peculiarity which recalls the snake, though most of the Tits have the same habit. The Wryneck feeds on various forms of insect life, and is particularly fond of

ants and their "eggs" or (correctly speaking) their pupæ, which it secures by darting out its long and glutinous tongue. This habit it shares with the common Green Woodpecker, and like that bird it may sometimes be seen upon the ground rifling an ant-hill with great zest and vigour.

GREEN WOODPECKER.

(*Gecinus viridis.*)

Yaffle, Ecle, Rain-bird, Whitwall.—This is the largest and commonest of the British Woodpeckers, and a familiar bird in nearly all the well-wooded parts of the country. Its laughing, ringing cry is a familiar sound to most country dwellers, especially in changeable weather, and just before or after the cry the bird itself may often be seen crossing from tree to tree with its curious undulating, plunging flight. On alighting, it does not perch like most other birds, but clings more or less upright to branch or trunk in a climbing attitude. The Woodpeckers are one and all famous climbers and tree-borers, and their structure is wonderfully adapted to this method of life. The beak is a straight, strong pick-axe, and is mounted on a suitably large and lengthy head; the legs are far back, so as to give the pick-axe plenty of swing;

and the tail is short, stiff, and spiky, to grip the tree and give additional support for the instrument's resounding blows. Thus armed, the Woodpecker is able to drive its nesting-gallery deep into the sound heart of a tree, while it splits and tears the dead wood and bark in its search for insects with the greatest ease. It is a very brightly-coloured bird ; when seen, as it usually is, in flight, the eye is chiefly caught by the brilliant yellow splash above the tail, which eclipses the predominant olive-green of the plumage, and sometimes leads people to suppose that they have seen a Golden Oriole. On a closer view, one notices the handsome contrast of the rich green tints of the breast and back with the red and black patches on head, neck, and throat, and the darker, mottled quill-feathers of the wings and tail. The hen bird has less crimson on the head. About the middle of April the Woodpecker begins to bore a hole for its nest, for it seldom uses the same hole for a second season, even if last year's quarters are not appropriated betimes by an enterprising pair of Starlings or Nuthatches. The nest may often be found by the fresh dust and chips, which may float many yards down wind from a nest-hole in a lofty trunk or bough, and thus lay a thin trail of sprinkled sawdust among the shooting bluebells and anemones in the wood, right up to

the tree of the Woodpecker's choice. It does not confine itself to trees in woods, however, nor to lofty situations, but will often bore into a low pollard willow at a height of only eight or ten feet. But good-sized beeches and ashes are the trees most often selected. A neat round hole, about two and a half inches across, is driven horizontally into the middle of the trunk or limb ; it then drops perpendicularly downward for about two feet, and the eggs are laid on the bare wood in a slightly enlarged chamber. Sometimes the bird takes advantage of rottenness in the wood for boring its hole, but such aid is by no means necessary. Five or six eggs are generally laid ; they are pure white, glossy, but not very smooth in surface, and a little larger than a Starling's. Once bored, the nest-holes last as long as the tree, though they do something to hasten its end by letting in wet, and so promoting decay, and also by making a weak spot where a gale later on may snap off the branch or trunk. Old holes are sometimes occupied by colonies of bats. The Green Woodpecker hunts for insects on the ground as well as in trees, and, like the Wryneck, is especially fond of ants, which it secures with its glutinous and immensely long tongue.

GREAT SPOTTED WOODPECKER.

(Dendrocopus major.)

Pied Woodpecker, Great Black and White Woodpecker.—This is certainly not such a common bird as the Green Woodpecker, though it is likely to escape notice owing to its smaller size and shy ways. Still, it is to be seen and heard in most wooded parts of the country. It makes itself most noticeable by the remarkably loud drumming sound which it produces with its bill on some dead branch of a tree at the breeding season in April. The strokes are so rapid that they make almost a single sound, like the roll of a kettle-drum, and in all probability they are produced by the same reflex, or rebounding, kind of stroke. The bird is probably not piercing the wood for the sake of food when it makes this noise, nor yet scaring insects out of their crevices by means of the vibration, but using it as a form of display to attract the hen bird. It is thus to a great extent its equivalent for song. The cry of the bird is a frequent repetition of a single note, something like the Green Woodpecker's or the Wryneck's in utterance, but not nearly so loud. It has also a sharp call-note. It is a little larger than a Starling in size, and is oddly and conspicuously pied and

spotted with black and white, while the male bird has a bright crimson patch on the back of the head. On the wing it has the characteristic dipping flight of all its family. It nests in May, boring a hole in a tree like that of the commoner species, though not so large. Owing to its smaller size, the bird is able to pierce it in a bough no thicker than a man's forearm. Six eggs are usually laid upon the bare wood of the hole, creamy-white in colour, a rounded oval in shape, and a little larger than a Skylark's. The young Woodpeckers grow very active before they leave the nest, and crowd to the mouth of the hole with as much noise as a brood of young Starlings; they are fed by the parent bird as it clings to the tree outside, and in this attitude transfers its mouthful of insects to one of the sharp beaks pushing in the doorway.

LESSER SPOTTED WOODPECKER.

(*Dendrocopus minor.*)

Lesser Black and White Woodpecker, Barred Woodpecker.—This odd little bird is noticed even less seldom than its larger relative; but it is probably the commoner of the two in many parts of the south of England. It is scarcely two-thirds the size of the other, being a little smaller

than the Nuthatch. Its plumage is of much the same piebald character as the Great Spotted Woodpecker's, but it has more white on the body, and the markings on the upper parts form conspicuous alternate bars of black and white. The red on the head of the cock is not so deep. It has a shrill, repeated note of the characteristic Woodpecker type, but lively rather than loud, and it sometimes drums on a bough in spring like its larger relative. It nests in May, boring a round hole in a tree in the regular Woodpecker fashion; the hole is naturally much smaller than those of the two other species, and may be described as mouse-size, whereas both of the other two would better fit a rat. Six eggs are generally laid, creamy-white, and a little smaller than the Wryneck's, which they otherwise much resemble. This curious little Woodpecker often haunts old elms and other trees even in the outskirts of towns.

KINGFISHER.

(*Alcedo ispida*.)

The Kingfisher's brilliant plumage has long made it a favourite object for what is known with a fine irony as "preservation," or exhibition in a

July 8, 1911. One flying down Cherwell, Oxford.
 " 17 - " 2000. Thames: 1-4 miles below Henley.

dead and stuffed condition under glass, and there is also a demand for its feathers for fly-tying. But owing to the protection now afforded it in most counties under the Acts, and by the Thames Conservancy bye-laws, it has increased a good deal during the past fifteen years or so in many parts of the country, and is certainly at present in no danger of extinction. During the severe and early frost of November, 1904, I watched for some time two Kingfishers busily fishing not three feet from the main road in a much-frequented Thames-side village, quite regardless of a passing bicycle which scared away a Snipe which was also feeding at the edge of the pool immediately beneath the bridge on which I stood, and there were several more Kingfishers along the backwaters within a range of half a mile. They will often show unusual tameness in very cold weather. But even in July I once found myself within three yards of a Kingfisher, on coming to the end of a hedge where it abutted upon a stream in the fields; the bird was posted on a rail over the water, watching the shallows in the opposite direction, and a couple of minutes passed before it flitted gently away, after twisting its head round once, looking me full in the face, and turning again to its fishing without alarm. It doubtless heard nothing, and practically saw nothing, as birds and animals never seem to recog-

nise an absolutely motionless human figure. But persecution has made the Kingfisher a wary bird in general, and it is more often to be seen only as a swift passing streak of glittering blue, uttering an extremely thin, shrill, piping cry. To propel the heavy head and body with such swift, undeviating flight, the wings have to move with extreme rapidity, so that the bird seems to move in the midst of a blur of azure light. In certain lights the metallic sheen of the plumage may almost completely disappear, and the dull, odd-shaped bird then looks wholly unfamiliar. The chestnut plumage of the breast is in any case not nearly so lustrous as the greens and blues of the back. When fishing, the bird descends upon the water from its perch with a resounding smack, and returns to its post with the prey held in its bill, before shaking it the right way up, and swallowing it. It will also hover over the water, hunting for its prey. Minnows and the small fry of other fishes are the usual food, but it also feeds upon water-beetles and other small creatures of the streams. During the cold weather the Kingfisher often leaves the smaller streams and brooks for the larger lakes and rivers, or the sea-shore, returning early in spring. Tennyson's reference to the "sea-blue bird of March" is therefore no less true to English nature for being partly de-

rived from a Greek source, though it has been a good deal criticised, even after all sorts of wild conjectures as to what bird was meant were finally disposed of by the poet's own statement that he meant the Kingfisher. Nesting usually begins about the second week in May, though occasionally much earlier. A hole is bored in the side of a bank, generally close to water, but sometimes in a dry sand or gravel pit, while rarely the birds will utilise a crevice in a wall. A new hole is generally made each season, but it is often close to the old one. It is usually about two feet long, and slopes a little upward from the entrance; it ends in a rather larger chamber, and here the eggs are laid on the bare soil, sprinkled with a few fish bones, which increase in number as time goes on. The eggs are from six to ten in number, eight, perhaps, being commonest, and are pure, glossy white, very much rounded in shape, and midway between the Robin's and the Thrush's in size. Their rounded outline makes them easily distinguishable from all other white eggs of about the same size. When fresh and unblown, the yolk shines through the shell with a beautiful pinkish tint, as is the case with the Martin's and other white eggs with very delicate shells.

CUCKOO.

(Cuculus canorus.)

Gowk.—The Cuckoo is one of the most welcome of spring's newcomers, as well as one of the strangest of all birds in its nesting habits. The familiar cry is generally to be heard in most parts of the country about the twelfth of April, while, according to the popular rhyme, "in June he changes his tune" to the three-fold "cuck-cuck-oo." In some summers, however, his voice is unbroken to the end, while the three-fold note may be heard occasionally at any time in the season. There is also a loud bubbling or choking cry. The hen Cuckoo begins to lay about the end of April; she deposits her eggs upon the ground and carries them to the selected nest in her bill. A single bird lays from five to eight eggs, but puts them into different nests; when two Cuckoos' eggs are found in one nest they have probably therefore been laid by two different birds. A great number of different small birds are chosen as foster-parents, and since the young even of hard-billed birds are fed upon soft insect food, the young Cuckoo receives the right kind of nursing even at the hands of Finches, and other seed-eating species. The commonest nests to be chosen by

the Cuckoo are, perhaps, those of the Hedge Sparrow, Pied Wagtail, Meadow Pipit, Sedge Warbler, and Reed Warbler. The egg is extremely small for the size of the bird, no doubt to agree better with the other eggs in the nests of the various small birds which act as foster-parents; but all the same, it is almost always a little larger than the rest. A theory is held in some quarters that the Cuckoo deliberately chooses a nest with eggs which resemble her own, and adds her own to them, but this is probably an error. It does not agree well enough with the facts, for if a large series (not a picked selection) of eggs found with Cuckoos' eggs is fairly compared, it is seen that the Cuckoo's by no means always resembles the other eggs in its own nest any more closely than it does some other nestful altogether. There is another theory that Cuckoos are split up into a number of families or clans, each of which is attached to some particular species of small bird, and that the eggs laid by the Cuckoo specially resemble the eggs of the small bird in question. This, on the whole, seems very probable, though it is unlikely that the hen Cuckoo *never* drops her egg into a different sort of nest to the one in which she was herself brought up. Sometimes the Cuckoo puts its egg into the other bird's nest while the rightful eggs are being laid, some-

times before them. Before the young Cuckoo is two days old, and before its eyes are yet open, it empties the other young birds, or the remaining eggs, out of the nest, by getting them on to its back and heaving them over the edge. There is neither bed nor board to spare, indeed, for any other nurslings if the tiny new-born Cuckoo is to reach full-grown size in a month's time or so. When nearly fledged, it is a fierce little creature, and will lay hold of an intruded finger with great promptitude and vehemence. The parasitic habits of our common Cuckoo are all the more remarkable, as certain American species of Cuckoo build their own nests (though extremely bad ones) like honest and law-abiding birds. On the other hand, the same parasitic habits occur in a quite different family of birds in the case of the South American Cowbird, which is a kind of Starling, and places its eggs in the nests of the Tyrant birds. In appearance the Cuckoo much resembles a Hawk, being bluish-grey above, barred grey and white on the breast, and with a long tail and wings; it is a common country belief that it turns into a Hawk in the winter, and even the small birds will mob it as they will a Kestrel, though this may possibly be due to its own troublesome habits, and not owing to any confusion of identity. The eggs vary a good deal in appearance, but they are usually of

about the size of a Skylark's, and of some greenish or greenish-grey tint in ground colour, with a number of rather small and indecisive spots, streaks, and stains of leaden-grey and reddish or greenish-brown. They have exactly the unobtrusive, undecided appearance, in their colour and markings, of eggs which are meant to be more or less like a dozen different patterns, and to attract little notice in any company. Occasionally they are blue, without markings of any kind ; but this happens very rarely, and it is doubtful whether it is not merely owing to the same failure of the colouring matter which will occasionally produce a blue Blackbird's or Chaffinch's egg. It may be interesting to mention that the larger Great Spotted Cuckoo, which breeds in Spain, but has now and then strayed to this country, is accustomed to put its eggs into the nest of the Magpie.

BARN OWL.

(*Strix flammea.*)

White Owl, Screech Owl, Church Owl.—The Barn Owl is still fairly common, in spite of much ignorant persecution, in most parts of the kingdom except the north of Scotland ; and as the knowledge gradually gains ground that it is one of the

most valuable of all friends to the keeper as well as the farmer, it may be hoped, that its numbers will tend to increase. It is a delightful bird, and the warm buff plumage of the back, with its minute pencillings and eye-specks of brown, grey and white, is as beautiful as that of any English species. The under-parts are white, and so is the facial disc, which it can pull into all sorts of shapes, from a full moon to an inverted pear, according to its degree of wakefulness and interest in the proceedings of the world at large. Like most of our Owls, it is nocturnal in its habits, though it is now and then to be seen out and about before the close of a winter's afternoon. The softness of their wing-feathers enables Owls to fly absolutely noiselessly, which is of course an immense aid to them in hunting for mice, rats, and other small and lively creatures. But the chief food of the Barn Owl is the various species of mice and land-voles, and the good it does in this way is immense. As its name indicates, it is especially a frequenter of barns, church towers, and other large crannied buildings, just as the Tawny Owl is fonder of the woods ; but it will also occupy a hollow tree, as well as holes in rocks, while the Tawny Owl, on the other hand, will sometimes inhabit a building. I have also found it drowsing out the hours of daylight in an old Magpie's nest, another spot

which is more usually the resort of the larger species. It is always an interesting and rather ghostly-looking spectacle to watch the noiseless form of the White Owl methodically hunting for its prey by night, whether it is seen above the scented hayfields in the luminous twilight of mid-summer, or when the earth and trees are as white as the Owl itself with hoar-frost sparkling under the stars. Its startling screech or yell is not so often heard as the Wood Owl's hoot ; it also makes, while hunting, a sharp, double, spitting kind of cry, much like one of the sounds which a cat will use to express her opinion of somebody else's dog. The young ones as well as the old will also utter all sorts of queer snoring and hissing sounds in their resting and roosting haunts. The Barn Owl makes no nest, but lays its eggs in its chosen hole from the middle of March onwards. Three or four eggs are laid, sometimes six ; they are often laid by instalments of pairs, at an interval of a fortnight or more, so that by the time the last eggs are hatched the first young birds may be nearly full fledged. The eggs are dull white, about the size of a House Pigeon's, but distinctly rounder in shape.

LONG-EARED OWL.

(Asio otus.)

Horned Owl.—This fine-looking bird is by no means scarce in most wooded districts, and is especially fond of fir-woods. It is smaller than the Tawny or Barn Owl, but has a taller and more commanding appearance, owing to its longer tail, and the presence of the two remarkable tufts or plumes upon the head. These are not the bird's ears, of course, any more than they are its horns, and their use is not certainly known. But it is conceivable that they are actual aids to hearing, and may serve as a further assistance in concentrating sound, which is the purpose of the hollow facial disc. Just as a man who is hard of hearing puts his hollow hand behind his ear as a sort of sounding board, this concave arrangement of feathers round the face enables the Owl to catch the slightest audible hint of a mouse as it moves in the grass. The great attention which Nature pays to the Owl's hearing apparatus is shown by the fact that in this species and the two next there is the most remarkable difference in the whole structure of the actual ear on the opposite sides of the head. It appears as if this difference is a specially elaborate provision to enable these Owls,

in some way, better to localise sounds; and we may perhaps infer that the feathery tufts are a still more perfect piece of mechanism which have only been developed in the "eared" species, just as the difference in the true ear-cavities has been granted to it and to the Tawny Owl, but not to the Barn Owl. Whatever may be the explanation, such are the curious facts. By day the Long-eared Owl clings to the depths of his fir-woods, sitting motionless on a branch high up, and easily escaping notice, especially as he is a bird of very silent habits. Occasionally, however, he may utter a short snapping or spitting noise, which betrays his presence to any one who is acquainted with him. He feeds by night on mice, young rats, small birds, and beetles. Nesting begins in March, or sometimes even in February; the four to six rounded white eggs, about the size of the Barn Owl's, being laid in an old nest of the Wood Pigeon, Crow or Magpie, or even on the flattened top of an ancient squirrel's drey. They may generally be distinguished from the Barn Owl's by being very smooth and ivory-like in surface, whereas the Barn Owl's are dark and rough. This Owl's plumage is of much the same mottled brown and grey as the Tawny Owl's; but it has more of a pale greyish tint than most Tawny Owls', and the breast is covered more closely with dark streaks.

SHORT-EARED OWL.

(*Asio accipitrinus*.)

This Owl is best known as a winter visitor from November onwards, and from the time of its arrival, the fact that it is often flushed while shooting, and its twisting method of flight, it is sometimes known as the Woodcock Owl. It differs from our other Owls in its preference for cultivated fields and heathery moors and commons over woodlands, and also in its having no aversion to being out and about by day. It is smaller than the Long-eared Owl, and looks smaller still owing to the ear-like tufts being very much shorter, and practically invisible; the facial disc is also less round and conspicuous than in the purely night-flying kinds. In general colour it is a mixture of mottled greys and browns, like the last species; but it is rather lighter in general colour, and sometimes it looks almost as light as a Barn Owl, though it has always its streaked breast to distinguish it, as well as the distinctly ashy-brown instead of yellowish tinge of its back. It breeds year by year in various parts of the moorland countries of Wales, Scotland, and the north and west of England, as well as sometimes in the eastern counties, and the usual time is May. No nest is made other than a

hollow in the heather, or the sedge of marshes, and the eggs, usually six in number, but sometimes more, are of the regular Owl character, rounded, white, and a little smaller than those of the Tawny Owl. There was a wonderful local increase of the numbers of Short-eared Owls at the time of the great plague of voles in South-west Scotland during the years 1890—1893. The birds destroyed enormous numbers of these pests, and under the influence of this plentiful food increased both the size and the number of their broods in a remarkable manner. Mr. Bell, of Castle O'er, in Dumfriesshire, has described a nest found in 1892 by a shepherd, in which the hen bird was sitting, on no less than twelve eggs, as early as the 29th of February. Only her head was visible above the snow, and seventeen dead voles were lying round the nest.

TAWNY OWL.

(*Syrnium aluco*.)

Brown Owl, Wood Owl, Hoot Owl.—The long musical hoot of the Tawny Owl may be heard in most well-wooded parts of the kingdom on a calm night, though gamekeepers' museums still display too often the form of this absolutely harmless and most useful bird hung up among the stoats, Carrion

Crows, and marauding cats, for whose presence there is more justification. Unlike the last three species, it is not known in Ireland. It chiefly roosts and nests in hollow trees, but will also occupy holes in buildings like the Barn Owl, and the old nests of Magpies, Crows, and Wood Pigeons, like the Long-eared Owl. It also lays occasionally under a branch upon the ground, or in a rabbit-burrow. Like the latter species, it is an early breeder, and the eggs are often to be found in March. There is no nest, though the floor of the hole, as is the case with the other Owls, is often strewn with the cast-up pellets of feathers, bones, and the other indigestible portions of their meals. Three or four is the common number of the eggs, though six is not very rare ; as is the case with the Barn Owl, they are often laid in batches of two, with perhaps a fortnight between. They are large, very round in shape, and dull white in colour ; after they have been laid some time they often get a good deal stained by their surroundings. The young Owls are most odd-looking little creatures at all stages of their growth, and very touchy in temper. The food of these birds mainly consists of rats and various kinds of mice and voles, as well as small birds, beetles, and an occasional newt or lizard. A selection of these dainties may often be found lying in the nesting-hole. The upper plumage is a rich

mixture of mottled browns and greys, often of a warm reddish tint, but sometimes more of a general walnut tone. There are some small white spots on the wings. The under parts are whitish, much streaked with brown. The hen bird is a good deal larger than the cock. Occasionally the Tawny Owl will valiantly pounce and strike at the head of an intruder into the neighbourhood of its nest, while it will often show a good deal of fight before leaving its eggs when it is sitting.

MARSH HARRIER.

(*Circus aeruginosus*.)

Moor Buzzard, Bald Buzzard.—The Marsh Harrier, like too many other members of the great Falcon order on which we now enter, has become almost more a subject of history than of natural history in the England of to-day. It is a typical bird of prey of the fens, and it vanished with them. Pairs still attempt to nest from time to time in Norfolk, and may now and then succeed in bringing up a brood. It is also seen occasionally during spring and autumn on migration. It is a large Hawk, nearly as large as the Buzzard, but less heavy of

build and broad of wing. The adult male is mostly brown, with a paler head and breast, and some grey on the wings and tail ; the female is brown nearly all over, and so are the immature young. The nest is built of reeds, upon the marsh ; three to five eggs are laid, of an unspotted bluish-white. The food consists of eggs, small or young birds and animals, and frogs and reptiles. The methodical, hound-like way in which these hawks quarter the ground in search of their prey is a conspicuous characteristic, and has given them their family name.

HEN HARRIER.

(*Circus cyaneus*.)

Blue Hawk, Dove Hawk (male), Ringtail (female).—This is a bird of the moor and mountain as well as of the marsh, and it has consequently not suffered to the same extent as the last species from fen reclamation ; though it has been greatly reduced in numbers by the general increase of agriculture, population, and game-preserving. It nests in parts of Scotland and Ireland, and rarely in the north of England and Wales, while foreign birds are sometimes seen on migration in spring

and autumn. The adult male is grey, with white beneath ; the female is chiefly brown, with a barred tail, and the immature birds are brown also. On the heathery hillsides where it now alone breeds in this country, the nest is little more than a hollow in the heather, though abroad, in marshes, it makes a substantial nest of dry vegetation, like the Marsh Harrier's. Four to six eggs are laid, bluish-white, sometimes with faint reddish spots and stains.

ASH-COLOURED HARRIER.

(*Circus cineraceus*.)

Montagu's Harrier.—In all its stages of plumage this Harrier closely resembles the last species, and its chief noticeable distinction is its slightly smaller body and proportionately longer wings and tail. It is only a summer visitor to this country, arriving in April, and trying to nest, occasionally with success, in May. The attempt is made most frequently in the remaining marsh-lands of the Eastern counties, but sometimes elsewhere. It builds on the ground, in marshes making a substantial nest of sedge, but only a slight one when it builds on dry, heathy ground. The four or five eggs are like the Hen Harrier's.

COMMON BUZZARD.

(Buteo vulgaris.)

Puttock.—Up to the middle of the last century the Buzzard was still common in many wooded districts, but it is now entirely confined to the lofty cliffs of the coast, and to mountainous inland regions. Happily it is still not rare in the mountains of Wales, the Lake District, and many parts of the Highlands, as well as along the coasts of the Bristol Channel, and its grand, broad-winged form may still be seen sailing and circling high in air on most days in these haunts. It is a stately rather than an active bird of prey, and it will rarely seize any live creature larger than a young rabbit ; while it feeds chiefly upon a varied selection of small birds, mice, moles, reptiles, and even insects. It has usually some watch-tower among the rocks to which it carries its larger victims to dispose of at leisure ; and here fragments of the feast may often be found scattered around. In colour it is a rich, reddish, mottled brown above, with paler stains below ; but different individuals vary a great deal in the depth of their colouring. It flies with slow beats of its broad, round wings, and will also float and circle in a very fine and striking manner at a height. Its note is a wild,

complaining whistle or mew. About the middle of April it builds a bulky nest of sticks, lined with wool, leaves and dry herbage ; generally nowadays this is placed on some ledge or in some crevice of the rock, but it is also found in trees. When built on a rocky slope it is by no means always in a very inaccessible situation. Three or four eggs are laid, of large size and much rounded in shape. They are dull white in ground-colour, blotched and stained with reddish-brown and lilac-grey. The markings vary from the bold, rich type of the egg illustrated to small flecks and stains on the background of dull white.

ROUGH-LEGGED BUZZARD.

(*Buteo lagopus.*)

This fine bird is a winter visitor from Scandinavia and Northern Russia, and is a rarity, though what may be described as a tolerably frequent one. Its most distinctive feature, on a close inspection, lies in its legs being feathered to the toes, like the Golden Eagle's, instead of being bare, as in the last species and most other birds, below the point at which they leave the heavy, sheath-like tufts which cover the thighs. It has also a white patch on the tail, which may aid its identification on the

wing. It is a little larger than the "Common" Buzzard, and has a bolder flight. During its visits to England it often attacks and feeds on rabbits.

GOLDEN EAGLE.

(*Aquila chrysaëtus*.)

Black Eagle.—The Golden Eagle occasionally wanders to the south and east of England, but it now only breeds in parts of the Scotch Highlands where it is preserved by the landowners, and more rarely in the mountains of Ireland. Since protection was extended to it it has increased considerably in numbers, and with the certain growth of interest in all forms of natural life it may happily now be regarded as fairly safe for the future. It is a splendid feature of the wild moorlands and mountains which it inhabits, and a magnificent spectacle in flight. It feeds largely on grouse, and the way in which the grouse will disregard all other occupations and alarms, and lie absolutely motionless in the heather, the moment that the wing of the eagle is visible round the shoulder of the hill, is one of the most characteristic and striking incidents in wild life which Britain has now to show. King among birds though the Golden Eagle is, the

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sinewy Raven is not afraid to attack him when he considers that his nest is endangered. The plumage of the Eagle is a rich, clouded brown, mainly dark, but with tawnier streaks and stains, and with a distinctly lighter and yellower mane-like plume on the head and neck. This mixture of colour, as seen in a bright or gloomy light, explains "Black" and "Golden" as possible names of one and the same species. It feeds upon lambs, young deer, and hares, as well as grouse and many other birds, and does not disdain to eat carrion at times. After a gorge on a dead sheep it is occasionally found almost as incapable of flying as a Vulture in the same condition. Most, if not all, of the well-known stories of its carrying off children are purely legendary. Its cry is a shrill scream. Its nest, or eyrie (which simply means "eggery"), is a mass of sticks placed on a ledge in some precipitous rock, or, more rarely, in a tree. It is often added to, spring by spring, for many years, and is then of great size. It is lined with dry stems, tufts of heather, and various other plants, both green and dry. Occasionally the Eagles have been known to add large bits of sacking or similar materials to their nest, more, apparently, for ornament than to provide soft bedding for the eggs or young. The eggs are laid in April, and are two or three in number. They vary, much in the same way as

the Buzzard's, between dull white, very slightly stained and spotted with lilac-grey and reddish-brown, and the same ground colour very strongly and handsomely blotched and stained with the same red-brown and lilac hues. After the young are hatched there is often enough "fur and feathers" lying about the nest to stock half a poulterer's stall.

WHITE-TAILED EAGLE.

(*Haliaëtus albicilla*.)

Sea Eagle, Erne.—This Eagle now only breeds in a few of the Scotch islands, and in one or two places on the west coast of Ireland. Young birds of the year are occasionally seen on the eastern side of England, during migration from northern Europe in the autumn. It feeds upon various kinds of birds, small live animals, and larger dead ones, and will also catch fish in the manner of the Osprey. The old birds are brown above and below, with a whitish head, and a white tail; but the immature plumage does not disappear until the fifth or sixth year, and in this stage the bird has no white markings. The lower part of the legs is not feathered, as in the Golden Eagle. The large nest of sticks is built on a cliff or rock, or

sometimes on a tree on some small island in a lake ; two eggs are laid, dull white in colour, only rarely marked with faint stains of red.

SPARROW HAWK.

(*Accipiter nisus.*)

Blue Hawk, Pigeon Hawk.—This fierce and dashing little hawk manages to maintain itself in fair numbers in most parts of the country where there are woods to give it shelter, though farmers and keepers do their best to extirpate it. It is without doubt a serious enemy to young poultry and game ; but it is also very fond of a Wood Pigeon, and the persecution of the Sparrow Hawk is certainly one of the causes of the immense and destructive increase of these birds from which farmers have suffered for years past. A Sparrow Hawk dashing along the edge of a wood in close pursuit of a Blackbird, Chaffinch, or some other common species is even to-day not an uncommon country sight, and most people know the little heaps of feathers by the hedgeside which show where the Sparrow Hawk has dined. It can generally be distinguished from the Kestrel, the other common country Hawk, by its blue-grey back, whereas the Kestrel is reddish-brown ; hence the local names

of "Blue" and "Red" Hawk respectively. Immature birds, however, are brown on the back, but it is a dark, smoky brown, quite distinct from the chestnut of the Kestrel. The male bird, as is the case with many of the Hawks, is considerably smaller than the female. The breast is barred transversely with brown, another point which aids in distinguishing this species from the Kestrel, which has its breast not barred, but streaked or spotted, more after the fashion of the Thrush. The Sparrow Hawk differs again in generally building its own nest, while even when it occupies the old nest of a Crow or Wood Pigeon it usually does a good deal of re-building and re-furnishing for itself. It builds in beeches, oaks, firs, spruces, and various other kinds of tree, and at very various heights from the ground—anything, in fact, between fifteen or twenty feet up, and the top of the tallest tree it can find. The nest is made of sticks, and is usually flat in shape and very fairly solid in construction. It is lined with smaller twigs. The five or six eggs are laid, as a rule, in the first half of May; they are very pale blue in colour, handsomely spotted and blotched with large, open spots of rich chestnut brown. Sometimes the spots are few, slight, and much stained or smudged; but their distinctly bluish-white ground colour always prevents them being confused with the Kestrel's.

As to size, they are about equal to a Wood Pigeon's in length, but a good deal thicker and rounder.

KITE.

(*Milvus iclinus*.)

Fork-tailed Kite, Glede, Puttock.—This fine bird is now very nearly extinct as a breeding species in this country, and it is a question whether the efforts which have lately been made to protect it in some of its last haunts, by posting guards over the nest during the breeding season, will succeed in saving it or no. The best known locality where the Kite still nests is among the high hills of central Wales; but there are one or two other places in England and Scotland where it still fortunately survives. Formerly the bird was very abundant in this country; an envoy from southern Europe in the sixteenth century made special note, as one of the remarkable things he saw on his travels, of the number of Kites in the streets of London, where they doubtless played the same useful part as scavengers that Vultures do in the cities of the East to-day. In Shakespeare, too, we find references to the Kite, which shows that it was quite one of the “common objects of the country-

side," and a regular village nuisance, owing to its habit of flying off with the household washing when hung out to dry on the hedges. There are still many "Kite's Nest Farms" scattered about the country, and it was not till towards the middle of the last century that the bird began to grow really uncommon. In colour it is mainly reddish-brown; it has a very graceful, gliding flight, and floats in lofty circles like the Buzzard, from which it may be distinguished by its long, forked tail. Its note is a shrill scream, or a sharp, repeated call. It builds in trees, making a nest of sticks, lined with various kinds of rubbish, such as bits of paper, and in earlier days the linen which it stole from the garden hedges, as well as wool and hair. The two or three eggs are about as large as a Buzzard's, bluish-white in ground colour, spotted and streaked with reddish-brown. The Kite feeds on small birds, animals, and reptiles, as well as on young game and poultry, and on carrion.

HONEY BUZZARD.

(*Pernis apivorus*.)

Wasp Hawk.—This, too, is a very rare species in this country, but, unlike the Kite, it never seems to have been a particularly common one. It is a

summer visitor only, and a few pairs still nest annually in the New Forest and other large woodlands. It does not arrive till May, when the woods are coming into leaf, so that it is likely to be overlooked, in spite of its large size, even in places where it is present. Its plumage is chiefly brown above, and, in the male, white barred with brown beneath the body, and on the undersides of the wings; in the female the white is replaced by yellowish-red. Both birds are grey on the head, and the flight resembles that of the Buzzard, but is even more easy and graceful, while the wings are longer and more pointed. The Honey Buzzard feeds on various insects and reptiles, as well as, occasionally, on small birds and animals, but its special and characteristic food is wasps, bumble-bees, and their grubs, in pursuit of which, and not for the sake of honey, it scratches open their nests in the earth, and will carry off the grub-filled combs to its own nest. This is a large shallow structure built in a tree of sticks, and is often lined with green beech leaves. The two or three eggs are creamy-white, blotched and flushed with reddish-brown. They are laid in June.

PEREGRINE FALCON.

(Falco peregrinus.)

Hunting Hawk, Goshawk.—This strong, keen falcon is still not very uncommon, though rarer than the Buzzard, in many of the inland mountainous districts of the kingdom, as well as on high sea-cliffs even in the south and south-east of England. It is distinctly smaller than the Buzzard, its wings are much more pointed, and its flight is more swift and active. It is also quite different in colour, being dark, barred slate-grey above, with a white breast, spotted and streaked with black. The immature young, however, are mottled brown above, and yellowish-brown with darker streaks beneath. Its activity and strength enable it to prey upon much larger birds than most of our other Hawks, and it captures Grouse, Partridges, and Rooks, as well as Gulls, and many smaller species. It will also seize rabbits; and it was, and is, the chief Hawk used in hawking, in which sport the male is called the Tiercel, and the female, which is considerably larger, the Falcon. The Peregrine breeds both in rocks and cliffs, and in trees; in the latter situation it lays its eggs in some old nest, such as a Crow's, and it will also utilise a Crow's nest when it is built in a suitable

position on a shelf or buttress of rock. Otherwise it merely scrapes a hollow in the earth upon some precipitous ledge. The eggs are from two to four in number, and are generally laid in April. They are a little smaller than the Buzzard's, and are much like a magnified Kestrel's egg, being thickly mottled and freckled all over with orange-red or chestnut-brown. The cry of the Peregrine is a sharp, loud, repeated call. The same situation is used for breeding purposes for many years in succession, and, as is the case with many birds with the same settled habits, the young birds are driven away by the old at the end of the summer, as soon as they are well able to shift for themselves.

HOBBY.

(*Falco subbuteo*.)

This delightful little Hawk is a scarce summer visitor, chiefly to large woodlands in the southern parts of the country, where it arrives in May, about the time that the trees come fully into leaf. Though a smaller bird than either the Kestrel or Sparrow Hawk, it has extremely long wings, and the speed of its flight may be judged by the fact that it is particularly fond of preying upon Swallows, and often accompanies their gathering flocks as

they move southwards in preparation for departure in autumn. It also catches Starlings, and various other birds of smaller size ; while it feeds to a great extent in summer on dragon flies, butterflies, cockchafers, and other such light winged game, as well as on bats and beetles caught at dusk. In colour it is dark slate-grey, almost black upon the head ; the sides of the neck have a sharp white patch, and the breast is creamy white, conspicuously flecked with black. As with many other Hawks, the cock bird is considerably smaller than the hen. The immature young are mottled brown and cream-colour, with the back, as usual, darker than the breast. The Hobby breeds in June, utilising some old nest, usually that of a Crow or Magpie, high up in a tree. A situation is generally chosen in a large wood, generally of beech or oak ; but it will also settle in some clump of big elm-trees in a meadow. It generally adds a little new material to the inside of the nest selected, and lays (as a rule) three eggs, which are extremely like the small, thickly-spotted type of the Kestrel's egg. If there are more than four eggs in the nest it is practically certain to be a Kestrel's ; but otherwise it is necessary to identify one of the parent birds, which is far the most interesting course in any case. Occasionally the Hobby remains in, or wanders back to, our country

during the winter. A particular effort should always be made to save this scarce and beautiful little Hawk from indiscriminate slaughter by gamekeepers on the preserved estates which it generally frequents; if it ever takes a young pheasant at all, it is on the rarest possible occasions, and its beauty and interest would more than compensate most sportsmen and landowners for ten times the destruction of game committed by all the Hobbies which nest in the whole of England.

MERLIN.

(*Falco aesalon.*)

Stone Falcon.—The Merlin is the smallest of British Hawks, and is distinctively a bird of the open moorlands. It is found during the breeding season on the moors and mountains of Wales and the north of England, while in winter it often descends to the lowlands, and its range is then more general. It preys upon numerous small birds, as well as on Snipe and other species of the marsh and shore, and is a swift and dashing flyer, though inferior in this respect to the Hobby of the southern woodlands. It has a favourite habit of perching upon some jutting rock or large boulder upon the moor-

lands, in characteristic Hawk-like fashion, and this is the origin of its commonest local name. Another local name is the Blue Hawk (also a common name for the Sparrow Hawk); while it is also sometimes called by the name of the Sparrow Hawk itself. Country names for birds are often extremely confusing, as the same name may be given not only to different birds in different parts of the country, but even to several distinct species in the same locality; for very few country-folk have an accurate knowledge of the different kinds of birds to be found in their own neighbourhoods, and are apt both to lump together several species of like appearance and habits under a single name, and also to make two different species where there is really only one. Only the male Merlin really deserves the name of "blue"; its upper parts are medium slaty grey, with narrow black streaks, while the tail has a black band towards the end, and a white tip. The upper parts of the female are darker brownish-grey, with the same white-tipped tail; and the under parts of both birds are creamy white, with darker spots or vertical streaks—not transverse bars as in the Sparrow Hawk. Immature birds of both sexes are brown like the female, but a little redder in tint. The female is distinctly larger than the male. The eggs are generally laid in May in a hollow among the heather, with little

or no nest ; but occasionally the Merlin will occupy an old Crow's nest in a tree, like the Kestrel or Hobby. The eggs are of the characteristic Hobby or small-spotted Kestrel type, but the dense frecklings are of a considerably darker shade of red, approaching a crimson-brown, or purplish chocolate-colour. Three to five is the usual number.

KESTREL.

(*Falco tinnunculus.*)

Windhover, Stannel Hawk.—The Kestrel is the commonest of our British Hawks, and is well known to most people who pay any attention to birds at all from its striking habit of hanging poised in the air, on motionless or steadily beating wings, as it eyes the ground beneath for the mice on which it chiefly feeds. It also eats beetles and other insects, as well as now and then a reptile or small bird. Very exceptionally, a Kestrel will seize young Pheasants from among the coops ; but to shoot all Kestrels at sight for their supposed destructiveness to game is just about as reasonable as it would be to hang all the population of the British Islands because now and then a murder is committed by a criminal. The Kestrel is one of the most useful birds we possess, and little by little

this is fortunately coming to be recognised, even among gamekeepers of the old-fashioned kind. The males and females are noticeably different in plumage, though there is not the same difference between them in size that there is among many other Hawks. The male is reddish-brown over the greater portion of the back, with a few dark spots; its head and tail are grey. The female is also reddish-brown above, but barred a good deal with deeper brown, which gives her a distinctly darker appearance. The under parts of both are whitish, with Thrush-like markings of black. The young are a rather lighter brown than the female, and speaking generally, the Kestrel can be easily distinguished from the Sparrow Hawk (or the Cuckoo) by its prevailing tinge of reddish-brown. It has a sharp, ringing, repeated cry, which rather recalls the laugh of the Green Woodpecker, but is more shrill and penetrating. The Kestrel nests both in trees and among cliffs and rocks, as well as occasionally on towers and ruins. In the first of these situations it generally occupies the old nest of a Crow, Rook, or Magpie, rarely, if ever, adding any new material, and often scratching away the top layer of decayed lining so as to reach the earthy platform or core. It also lays its eggs, more rarely, in the hollow top of a broken-off trunk, or even inside a regular hole, like an

Owl. On cliffs and rocky hillsides it makes a smooth, shallow hollow in the earth of some overhung ledge, or little natural grotto, often half concealed by roots and vegetation. This hollow is lined with no nesting material, but, as time goes on, it often becomes covered with the pellets cast up by the birds. Four to six eggs are generally laid, always of the characteristic red which marks the eggs of the whole Falcon family, but differing a good deal in appearance. They vary from yellowish-white to yellowish-red in ground colour, and are sometimes freely splashed and spotted with deep reddish-brown, like the variety illustrated, while others are thickly freckled all over with small specks of rich orange-red, or equally rich red-brown. Like other Hawks and Owls, the Kestrel does not lay one egg a day, as is the case with most other birds, but leaves an interval of from two to four days between them. If undisturbed it nests in the same spot, or close to it, for many years in succession.

OSPREY.

(*Pandion haliaëtus*.)

Fishing Hawk, Mullet Hawk.—This fine bird is now very rare as a British breeding species, only

nesting in a few protected places in the Scotch Highlands. During the winter it wanders southward, and it is seen fairly frequently on migration in autumn in the east and south-east of England, where it often settles for a few days on some estuary or inland lake, before making the next stage on its journey. Its large size, tufted, white-marked head, whitish breast, and dark-brown, white-flecked back make it easily recognisable, as well as the way in which it haunts the waters in pursuit of its prey of fish. It is a splendid spectacle to see it plunge upon the water with a resounding splash, and emerge with the fish held in its claws. The female is larger than the male, and has more brown on the breast, while the immature birds, which are most often seen in autumn, are less dark upon the back. A very large nest, which is added to year by year, is built of sticks, sometimes with turf added, in the top of a fir-tree not far from the water, or on an isolated rock or ruin. The two or three eggs are creamy-white in ground-colour, magnificently splashed and blotched with reddish or purplish-brown.

HERON.

(Ardea cinerea.)

Hern, Crane.—Though a heronry is not to be found in every English neighbourhood, the Heron, either long-limbed at rest, or with his magnificent spread of wing in stately flight, is to be seen at times in most parts of the country during the winter. In many rivers and estuaries he is a very familiar bird indeed ; and owing to the long distances which he often covers to reach his feeding-grounds, he is a well-known sight for many miles round each of the places where he nests. He is one of the largest English birds, and the gift of flight never seems a greater wonder in human eyes than when we see his huge wings suddenly take shape among the reeds at the water's edge, and heave slowly into the air in apparent disregard of all the laws of gravity. Very curious, too, but more quaint than stately, are the antics of the birds in the top of their nesting-trees at any time in the nesting-season, but especially in very early spring, when they are building or repairing their nests. The long legs and necks seem then so greatly in the way, and the Herons straddling in the naked oak-crowns so much resemble geese practising on stilts, that the spectacle is one of the queerest imaginable. The Heron does not seem

July 17, 1911. Three adults: 2 on wing 1 perched on post along Thames
3 or 4 miles below Henley.

made by nature to build its nest in a tree, and indeed in other countries it often nests on the ground in a marsh. Even in Britain it builds, in different places, on cliffs, ruins, and the bare ground. But in England the tree-top is the rule, and it generally breeds in company, like the Rook. The Heron returns to its heronry very early in the year, and I have found a nest with its full four eggs by the 24th of February. The middle of March, however, is more like the average date. The nest is made of sticks, and is big enough to fill a hip-bath; it is lined with twigs, roots, and sometimes a little dry grass, and generally sees several years' service, with a little repair each spring, before it is finally abandoned. It is rather flat in form, and the hollow is not a deep one; with the splashings of the birds, which are by no means clean in their habits, the black sticks of the nest soon become almost white. Three to five eggs are laid, of large size, and a clear and beautiful greenish-blue in colour, greener by some shades than that of the Hedge-sparrow. The Heron has various notes for different occasions, but all of a harsh and trumpet-like character. Its most characteristic attitude is one of motionless vigilance in or by the water; and its food chiefly consists of the fish, eels, and frogs which it secures in this situation. But it will also eat mice, rats, insects, young birds,

reptiles, shell fish, and almost anything else of an animal character that it can seize. When wounded, it will use its bayonet-like bill with great courage and effect. Its plumage is chiefly grey, with paler grey beneath ; the long crest or plume is bluish-black.

BITTERN.

(*Botaurus stellaris*.)

Butterbump or Bootherboomp, Bull-of-the-Mire, Mire Drum.—The voice of the Bittern was its most conspicuous feature in days when it was still common in England, as its strange local names pretty clearly show. It is a skulking bird, and its shape and plumage enable it to hide in a remarkably perfect manner among the long dead reeds of the marshes which it frequents. The drainage of marshes in all parts of the country has destroyed its former strongholds, and now, though Bitterns appear in England at the breeding season almost every year, they are generally shot, and seldom or never find sufficient freedom from disturbance to make nesting possible. The Bittern, in fact, is no longer to be reckoned among the species breeding in Britain, though it is a fairly frequent visitor. It is rather more than half as large as the Heron, and has a long neck and legs ; the plumage is warm

buff, much streaked and mottled with brown, and the feathers of the neck and throat are long and plume-like, while those of the nape can be raised and expanded into a hood or ruff. At the breeding season the male bird makes a very loud and remarkable bellowing noise, chiefly by night. It is also a night feeder. Its food is chiefly animal, and as various as that of the Heron. It builds a large nest of dry reeds in the thick of the marshy vegetation early in the spring, and lays four eggs of deep, unspotted yellowish-brown. Very old men in the "parts of Holland" in Lincolnshire, and other districts of what is still known as the Fen Country, can still remember and describe the Bittern's bellowing note, which it was formerly believed the bird produced with its bill thrust inside a hollow, trumpet-like reed; but it is fully fifty years since the voice of the Bittern was last heard in spring in most of the fenland parishes.

MUTE SWAN.

(*Cygnus olor*.)

Like the Pheasant and Red-legged Partridge, the common Swan is not a native British bird. But it has for centuries been so familiar on our lakes, rivers, and harbours in a half-wild state that

July 17, 1911. About 200 seen - Henley to Kingston

it demands a place in a list of British species. It is said to have been introduced into this country from Cyprus by King Richard I., and is thus one of the products of the Crusades, if this is to be regarded as the true story; but it still breeds wild no further away than Denmark, Sweden, and North-Eastern Prussia. The largest and most famous swannery in England is that at Abbotsbury, in Dorsetshire, belonging to Lord Ilchester, and the swans from Abbotsbury may frequently be seen on the sea off the neighbouring beaches. In England the swan begins to nest at the end of March or in April; the nest is a large heap of dry reeds or other marshy herbage. The number of eggs varies from three or four to nine, ten or even twelve, more being generally laid by the hen bird as she grows older. They are of a uniform, pale sea-green. The male bird is bold and fierce in defence of his nest, but the story that he can break a man's leg with the blow of his wing is an exaggeration. The plumage of the cygnets is greyish-brown, the white feathers appearing gradually, and not being fully gained for more than a year. The Swan principally feeds on water-plants, though it will also accept bread or grain with much graceful condescension. It is also amusing to watch it nibbling off grass from the bank, and methodically dipping each beakful in the water to soften it before

it is swallowed. The name of "Mute Swan" is given to distinguish it from the Whooper or Whistling Swan, which is the commonest of the two species of "Wild Swans" which visit our coasts in hard winters. Though in a wild state it has a loud enough cry, it seldom utters more than a low, soft note in its domestic or half-domestic condition, and it has not got a very peculiar loop-shaped enlargement of the vocal organs which is possessed by all other European Swans.

MALLARD.

(*Anas boscas.*)

Wild Duck.—As its common description by the general family name of "Wild Duck" plainly implies, the Mallard is the commonest and best known of the numerous species of the duck tribe in Britain, few of which, however, occur habitually as inland species. It is also the original ancestor of the common bird of the duck-ponds. It has long nested in some abundance in many parts of the country, and in recent years it has been bred in much increased numbers on many estates in a half wild condition for purposes of sport, like the Pheasant. The number of British-bred birds is much increased in winter by foreign visitors, espe-

cially in hard seasons ; these birds chiefly frequent good-sized lakes, or expanses of flooded land, and generally supply the largest heading in the records of the duck-decoys, which are still worked with success in some parts of the country. The winter plumage both of the Drake (or Mallard proper) and the Duck are too familiar to need description, but it is not so well known that a little before midsummer the Drake begins to lose all his brilliant male markings, and during the latter part of the summer wears a dull brown dress which is very like that of the Duck. He regains his full plumage in October. A similar change is undergone by all the fresh-water family of Ducks, to which belong this and the next six species described. The Mallard begins to nest at the end of March, or early in April, and the nest is generally placed near some pond, lake, or stream, and on the ground, among reeds, grass, or brushwood, or in a hedge. But not at all infrequently it is half a mile or more from water, and on dry, upland ground, while it is also not very unusual to find the Mallard's nest on the crown of a pollard willow, or in a fork or hollow in some other kind of tree, or even in an old Magpie's or Woodpigeon's nest. It is made of dry grass, well mixed and lined with down picked from the body of the bird. Eight to a dozen eggs are laid,

smaller than those of the domesticated variety, but of the same light creamy green. When the Mallard nests in a tree it has been wondered how it gets its young to the ground, since Ducklings leave the nest for the water as soon as they are hatched, and long before they can fly. The answer is probably simple : it drops them over the edge. At any rate, showers of Ducklings are often seen in spring in Kensington Gardens in London, where the tame Wild Duck nest in some of the old elms, and there is no reason to suppose that in this respect the habits of perfectly wild birds are not the same. The fluffy little Ducklings fall almost as lightly as thistle down, and are off to the Round Pond in no time. The Mallard feeds on water-insects, worms, frogs, etc., and is also extremely fond of ripening grain. It does not feed by day, and may often be seen fighting over in the evening from its daytime quarters to its feeding-grounds.

GADWALL.

(*Anas strepera*.)

This Duck breeds on a few waters in Norfolk and the Midlands, but is altogether rare. The Drake is rather smaller than the Mallard, and is chiefly fine mottled grey and brown in plumage, with

pale grey markings on the back, and a white patch on the wing, where in the case of the Mallard, for instance, it is blue. The duck is browner and soberer in general colour, and has a similar white wing-patch. The nest of grass and down is built on the ground among herbage, generally in a dry spot, and the eight to a dozen eggs are dull cream-colour, with but little tinge of green.

SHOVELLER.

(*Spatula clypeata.*)

Broad-bill.—The Shoveller is occasionally to be seen on inland waters both as a winter visitor and as a breeding species, but is never as frequent as several of the other species here described. The Drake is a very fine bird, with a very dark green head and neck, a white breast, and the back and wings boldly marked with stripes and patches of dark brown, white, and blue-grey. The Duck is the usual sober mottled brown. But the most distinctive feature of both Drake and Duck is the upper mandible of the bill, which is broadened out like an inverted spoon, and is quite unlike anything else in the same family. It is set inside with extremely sensitive plates, thus providing the bird with an admirable apparatus for perceiving and

securing extremely minute forms of food. The Shoveller may be seen gobbling along the surface of an open lake in exactly the same way as a Duck skims off the duckweed that coats a farmyard pond, and it is doubtless then feeding on minute and invisible life, or perhaps on equally invisible small drowned, winged insects. It is not confined to this minute diet, but also lives on worms, snails, crustaceans, etc., and on grasses. The nest of dry grass and down is built on the ground, among heather or marsh vegetation, and the eight to a dozen eggs are a little smaller than the Mallard's, and of the same creamy green.

PINTAIL.

(*Dafila acuta.*)

The Pintail is a frequent visitor to our coasts in winter, and is also found on inland waters, though by no means so commonly as several of the other species. The Drake can be easily recognised by his long, pointed tail, long, slender neck, and a conspicuous white shaft, or streak, on each side of the brownish neck-feathers, which begins on a level with the eye and runs down till it joins the white throat and breast. The plumage of the body much resembles that of the Widgeon, though the

Pintail is the larger bird. The Duck is of the usual mottled brown; her tail is only slightly more pointed than that of other species, but her neck is distinctly longer and slenderer, though this feature is less pronounced than in the Drake. The length of the tail has gained the Pintail the occasional local name of the Sea Pheasant; but this title is more commonly and more appropriately given to the Long-tailed Duck (*Harelda glacialis*), which during the winter, when it visits us, is exclusively marine in its habits. The Pintail has only lately become a breeder in Britain, but now nests in one or two places in Scotland. It is not unlikely to extend its range.

TEAL.

(*Nettion crecca*.)

This nimble little Duck is a frequent winter visitor to pools and lakes over the greater part of the country, but it also nests not infrequently even in the south, and is fairly common in the north of England, parts of Wales, and Scotland. It is easily recognisable owing to its small size, being little more than half as large as the Mallard. The Drake is a very brilliantly plumaged bird in his

winter dress, his chestnut head with a conspicuous green streak across and behind the eye being his most distinctive features. The Duck, as is the case with the whole tribe, is much plainer in colour, being mottled brown, with much less conspicuous markings on the head and wing. The nest is built in May among brushwood and herbage, usually near water ; dry grass and leaves are the materials, with the down of the Duck herself. Eight to a dozen eggs are laid, creamy buff with a slight tinge of green. The note of the Teal is a shrill, whistling chatter, and it is extremely swift upon the wing.

GARGANEY.

(*Querquedula circia*.)

Cricket Teal, Summer Teal.—This, too, is a Duck which arrives in spring and breeds on a small number of inland lakes. It is a little larger than the Teal, and rather resembles it in general markings ; the best point of identification is a white stripe beginning above the eye and extending backwards some distance down the deep brown neck. The Drake in spring utters a peculiar jarring, rattling cry : hence the name of “Cricket Teal.” The nest is built of dry grass and down, among

marshy sedges, or heather, and the eight to a dozen eggs are a little larger than the Teal's, and creamy white, without a tinge of green.

WIDGEON.

(*Mareca penelope.*)

Whewer, Whew Duck.—Great numbers of Widgeon visit our coasts and estuaries in hard winter weather, but on inland waters it is comparatively rare. It breeds in some parts of Scotland, chiefly in the wilds of Sutherland, and has been known to do so in England. The Drake may be recognised by the light yellow patch on his chestnut head, the neck being chestnut also. The Duck is chiefly greyish-brown, a good deal stained with dingy white; there is, in particular, a white patch along the fore part of the wing, but it is less conspicuous than in the case of the Drake. The Widgeon feeds on grass and grass-like water-weeds by day as well as by night. The Drake has a conspicuous whistling cry; though a surface-feeder, and not one of the true diving-Ducks, this species will dive readily and actively. The nest and its situation are similar to those of the last species, and the seven to ten eggs, about the size of the Mallard's, are less green in colour.

COMMON POCHARD.

(Fuligula ferina.)

Red-headed Poker, Dunbird.—We pass, with the Pochard, into the class of Diving-Ducks, which get their food, whether vegetable or animal, below the surface of the water. The Pochard is a common winter visitor, and is not at all infrequent on inland lakes and pools during hard weather, while the number of waters where it breeds has been increased a good deal of late years, since the birds have received more efficient protection. The plumage of the Drake is easily recognisable ; all the middle part of the body is clear grey (actually a finely lined pattern of light grey and black, as is seen on a near view), while the head and neck are bright chestnut, the breast and shoulders next adjoining black, and the tail and wing-tips black also. Thus the middle of the bird is light, and its head, neck, shoulders, and tail dark or black, as it is seen out on the water. The Duck's plumage has the same outlined pattern, filled in with soberer colours, as is more or less the case with many species of this family. She is dark brown fore and aft, and a rather lighter brown amidships. It is generally noticeable that on a half-frozen lake the Pochards and other diving Ducks cling to the open

water, and do not join the Mallards, which rest and preen themselves for an hour together upon the ice. The Pochard is a very lively diver, and feeds both on animal and vegetable fare. The nest is built among herbage by the side of the water, and the eight to a dozen eggs are about the size of the Mallard's, and a rather dingier or brownish green in colour.

TUFTED DUCK.

(*Fuligula cristata*.)

Golden-eye (wrongly).—The Tufted Duck is a common winter visitor, and of late years has bred in increasing numbers on inland waters, especially on various estates in Nottinghamshire. It is considerably smaller than the Mallard, and swims very low in the water, being ready to pop under with almost the readiness of a Dabchick ; the Drake is jet-black and white, and the Duck sooty-black and brown. The arrangement of the plumage is as follows : in the Drake the head, neck, back, and both upper and under tail-feathers are black, while the flanks and belly are white. When swimming, it is a small black Duck, with white patch on each side, shaped much like a Dutch wooden shoe, with the toe pointing towards the tail. It has a black

tuft hanging from the back of its head, and the eye is even more brilliantly yellow than that of the Golden-eye itself. There is a small white wing-patch, but this is scarcely visible when the bird is at its normal safe distance, and need not be taken into account. The Duck has the same outline pattern, but the side-patch is brownish-grey, and very nearly as dark as the sooty-brown of the rest of her plumage. If it is kept in mind that the white on the Tufted Duck (and its corresponding paler brown in the female bird) is practically all in this one shoe-shaped side-patch, not even its general likeness to the Golden-eye, and its own conspicuous yellow eye, will lead to a confusion of identity. The nest is built in May or June, of the usual dry grass and down, in or under bushy or sedgy cover near the water which the Ducks frequent. The eggs are of the same size and colour as the Mallard's; indeed, the nests and eggs of a number of the Duck family are so much alike that only a knowledge of the parent bird enables them to be identified. Expert ornithologists are also able, as a rule, to determine the species of Duck to which a nest belongs by a minute examination of the body-down with which it is lined.

GOLDEN-EYE.

(Clangula glaucion.)

Rattlewings, Morillon (female and young).—The Golden-eye is a fairly frequent winter visitor to inland waters in many parts of the country, as well as to the coast, but has never been known to breed in Britain. The old Drake has a black head and back, with a white breast and belly, heavy white markings on the wings, and a conspicuous white, oval patch beneath each eye. Birds in this full feather, however, are scarce by comparison with the Drakes in immature plumage, which are very like the Ducks, and with them are still often called Morillons, and thought to be a separate species. Their plumage is dusky brown, with white bands on the wing, and larger or smaller whitish or greyish patches about the throat and breast. The various states of plumage in the Golden-eye and Tufted Duck are at first very confusing ; but the Golden-eye has conspicuous white markings upon the wing itself, and the Tufted Duck only on the flank beneath it, while the Golden-eye's breast is white, or its whitish-brown equivalent, and the Tufted Duck's is black, the white not extending upward from the belly to the breast at all. The Golden-eye feeds by diving, and eats both animal and vegetable food.

GOOSANDER.

(*Mergus merganser.*)

Dun Diver, Sawbill.—This and the next species are fish-eating ducks of curious appearance, their long, saw-edged bills, turned over at the point, giving them very much the look of Cormorants about the head. The Goosander is a fairly frequent winter visitor to inland waters in the more easterly parts of England, and breeds sparingly in some parts of the Scotch Highlands. The old male birds (though belonging to the Duck tribe, they are not sufficiently Duck-like to make it seem natural to speak of them as “Drakes”) have a red bill, a dark green head and upper neck, a white breast and belly, and upper parts black and grey, with a large white patch on the wing. There is a tuft or crest at the back of the head. The females, and immature young, have the head and neck red-brown, the upper parts chiefly grey, with the quill-feathers of the wings brown, and the under parts yellowish-white, stained with grey on the flanks. They breed about the end of April or in May, making a nest of grass, roots, and the down of the old bird, in some hole, generally in or under a tree, or sometimes on a ledge of rock. The eight to a dozen eggs are larger than those of the Mallard, and yellowish-white, without spots.

RED-BREASTED MERGANSER.

(Mergus serrator.)

Red-breasted Goosander, Sawbill.—This is a rather smaller bird than the last species, and is fonder of salt water than fresh, when winter drives it south to England. But it breeds more commonly than the Goosander on the inland lochs and loughs of the Highlands of Scotland and Ireland. The male in winter plumage is a very handsome bird. The bill is red, the head and throat dark green, the neck white, the breast chestnut streaked with black, bordered at the side by a conspicuous patch of white feathers edged with black. The back and wings are mixed black and white, while the flanks and tail coverts are finely lined grey, and the belly is white. The females and young are chiefly reddish-brown, with a good deal of white upon the wing, and a whitish belly. The crest in both sexes is larger than that of the Goosander. The nest is generally very well concealed in heather or tussocky grass, and is built of dry-grass, roots, and similar materials, as well as the bird's own down. Six to nine is the usual number of the eggs; they are a little smaller than the Goosander's, and pale, dull, greenish-brown in colour. The food is small fish, including

young trout and salmon, and, like the Goosander, this bird is held in a good deal of detestation by fishermen accordingly.

RING DOVE

(*Columba palumbus.*)

Wood Pigeon, Cushat, Queest, or Quist.—One of the best-known birds in all parts of the country, and one which visits us in winter in enormous flocks from the Continent, doing a great amount of damage to green crops, and especially to fields of swedes and turnips. The Ring Dove also feeds very largely on grain, seeds of many kinds, and beech-nuts and acorns. Even as a breeding species its numbers have greatly increased in many districts in recent years, and this is without doubt due in great measure to the destruction of more than one species of Hawk which formerly helped to keep the numbers of Pigeons within reasonable bounds. This is the largest of the British Pigeons, and the difference in size alone is generally sufficient to distinguish it from the Stock Dove, which is often confused with it. But an unfailing means of recognising the Ring Dove in flight is the conspicuous white patch which it then shows on each wing; while at close quarters it can also be recognised with equal certainty by the white “ring” on

the neck, which is not, as a matter of fact, a ring at all, but two round white patches, one on each side. In immature birds these white neck-patches, however, do not appear till the beginning of the second spring. The exceeding wariness of the wild Wood Pigeon is as well known as its strong, swift flight, and the loud clapping of its wings above its back which it makes on taking flight out of a tree. Yet it shows so much intelligence in its caution that when it settles in the London parks and squares, where it is petted instead of persecuted, it becomes one of the tamest of all birds, and will barely move out of the way of the passer-by. Its loose, flimsy platform of sticks, scantily cushioned with roots or finer twigs, is built almost anywhere in trees, shrubs, or good-sized bushes, and it breeds from March to September, though May and June are the most usual months. It lays two eggs, of a pure glossy white. The white eggs of the Wood Pigeon and the Turtle Dove are a very remarkable exception to the great general protective rule that only those eggs which are laid in holes can afford to be white, and therefore very easily noticeable, while eggs laid in open nests in trees and bushes must have some sort of spots, blotches, or other deeper colour to make them at least moderately inconspicuous to the eye of egg-destroying creatures in their natural surroundings. It is a striking thing that the Stock

Dove and the Rock Dove, which also lay perfectly white eggs, do breed in holes, as we should expect of them ; and the explanation of the white eggs of the bush and branch-building Wood Pigeon and Turtle Dove is probably this, that they have only left their ancestral holes, and taken to their present style of building, a short time ago, as time goes in science, and have not yet developed the coloured and spotted eggs which rightly fit the new situation. We thus see one of Nature's processes in a state of change and incompleteness, between the period, some millions of years ago, when the Wood Pigeon and Turtle Dove nested in holes, as their relations do still, and the other period some millions of years hence, when, if no other causes interrupt the process of development, we should expect them to produce spotted eggs like those of the Crows, or Finches. The extremely rough-and-ready methods of nest-building of these two Doves also lend support to this explanation of the problem, and are themselves explained by it. For the nests of the Wood Pigeon and the Turtle Dove, though extremely poor affairs for an open situation in trees and bushes, would be perfectly adequate and sufficient as the mere flooring or lining of a snug and well-protected hole ; and, as a matter of fact, the Rock Dove does make an almost exactly similar nest in such a situation. So that, as time goes on

—the inexhaustible time of science—we should expect the Wood Pigeon and Turtle Dove gradually to learn to build the kind of nest which Nature demands, as a rule, of birds which build in the more open situations which they have chosen. It is worth noticing that the Wood Pigeon is still very fond of building in the middle of a thick, dark ivy-bush, a situation which seems to show a lingering preference for its ancient caverns. As to the whole subject of the resemblance of eggs to their surroundings, it will be seen, on examination and reflection, that eggs laid in nests which are half-hidden and protected by grass, trees, or bushes have only a half-protective design—a sort of rough likeness to the colours and shadows of the place in which they are laid ; while those which are laid quite out in the open, on the bare earth or gravel, have generally a scheme of colouring which safeguards them with far greater accuracy and completeness. The eggs of all birds were probably white and unspotted in the beginning, like those of the reptiles from which they are descended ; but only those birds which nested in good, safe holes could afford to go on laying eggs of such a conspicuous appearance, while the species which bred in more exposed situations had to develop patterns of colour. And these patterns became more or less thoroughly imitative of their surroundings in proportion to

the greater or smaller need for this kind of protection, according to the particular character of the nesting-place.

STOCK DOVE.

(*Columba oenas*.)

The Stock Dove, like the Ring Dove, has increased a great deal in numbers of recent years, and is now found in most country neighbourhoods, though it is still rather local in its distribution. It can be plainly distinguished from the Ring Dove by its distinctly smaller size, and the absence of any white upon its wings in flight; while at close quarters it is seen that the Ring Dove's white patches upon the neck are replaced by similar markings of glossy, metallic green. There are other differences in the plumage, but these points are most useful for distinction. The Stock Dove has much the same varied vegetable diet as its relative, but it eats a smaller proportion of the farmer's cultivated crops, and more noxious weed seeds, and wild beech-mast. It also eats small snails. It begins to breed early in spring, the eggs being often laid by the beginning of April, and, like the Ring Dove, it occasionally has young broods even up to the autumn. I have found unfledged Stock Doves in August in the same hole

in a pollarded oak in which a Tawny Owl had bred in the spring. A roomy hole in the trunk of a tree is the usual situation (hence the name of "Stock" Dove); but where suitable trees are scarce the Stock Dove will occupy a rabbit hole, or lay its eggs beneath a thick bush of furze. Occasionally it will appropriate an old Magpie's nest or a squirrel's drey; the Ring Dove will sometimes do the same. The two white eggs are like the Ring Dove's in shape, but distinctly smaller, as a rule. The coo of the Stock Dove is less loud and varied than the Ring Dove's well-known note; it is short, low, and abrupt.

The ROCK DOVE (*Columba livia*) is not an inland bird in a truly wild state, but it deserves a word of notice as being the original species from which all our tame House Pigeons are descended. It may be recognised by the dark bars across the wings, and the white patch to be seen above the tail as it flies.

TURTLE DOVE.

(*Turtur communis*.)

This beautiful little Pigeon is one of the birds most closely associated with warm June days and the rich verdure of early summer, for, unlike all

its relatives, it only visits us for the breeding season, and is not present in any considerable numbers until after the beginning of May. It is common in many districts of the south and east of England, and may be seen feeding singly or in small flocks on the arable fields throughout the summer. In the extreme west and the north it becomes scarce or rare. On fine days in May and June the coo of the Turtle Dove is one of the most characteristic voices of the green hazel-copses, dense thorn-brakes, and high woodland hedges which it haunts ; it is a double pulsing note, a little more rapid in delivery than that of the Wood Pigeon, but softer and more unobtrusive in tone. The Turtle Dove is scarcely more than half the size of the Wood Pigeon, and can easily be identified in flight by the white band at the end of its fan-shaped tail. There is a great deal more brown, and less grey, on the upper parts than in the rest of the family, the back and the greater part of the wings being a warm mottled russet. The neck-patches are mottled black and white. The food chiefly consists of grain and various kinds of seeds, including those of corn-field weeds. The nest is built late in May or in June ; it is a flattish and flimsy platform of sticks, lightly covered with roots ; the eggs can often be seen from below through the interstices of the materials. It is generally built in a

bush or thick, tall hedge, at a height of from six to ten feet. The two eggs are a little larger than a Blackbird's, and pure, creamy white. Now and then a Turtle Dove is found in England during the winter, as is the case with the Landrail, Stone Curlew, Blackcap, Chiffchaff, and a few other birds which are normally only summer visitors. The species which is commonly kept as a pet is the Collared, or Barbary, Turtle Dove, and is quite distinct from our native bird.

CAPERCAILLIE.

(*Tetrao urogallus*.)

Capercaillie, Wood Grouse, Cock-of-the-Wood.
—An old inhabitant of pine forests in this country, the Capercaillie became extinct in its last haunts in Scotland more than a hundred years ago. "In 1837," says Mr. Howard Saunders, "its reintroduction from Sweden was successfully accomplished in Perthshire," and it is now common in many parts of central Scotland, though attempts to naturalise it in one or two English districts have been unsuccessful. It is a large and handsome bird, and a big old cock upon the wing looks nearly as big as a Turkey. It varies, however, a great deal in size; the hens are considerably

smaller than the cocks, but the cocks do not run as large in Scotland as they do in many of the pine forests on the Continent. The sexes are also very distinct in plumage, the cock Capercaillie being a very dark mixture of browns, greys, and greens, so as to appear almost black, with a few paler spots, when seen at large in the woods. It has a powerful hooked beak, and a red bare line above the eye; the head is slightly bearded and tufted, and the legs are feathered, as also in the hen. The rest of the hen's plumage is a rich, warm mixture of reddish and orange browns, with numerous semi-circular markings of darker brown and of white; the orange-red tint is brightest upon the breast. Both sexes are much like a magnified Black Grouse, but the cock has not got the same characteristic out-turned tail feathers. The Capercaillie feeds on young shoots of trees of the pine family, and is sometimes very destructive to young plantations; also on moorland and forest berries. Breeding begins in April; the nest consists of a hollow scraped in the ground among the heather or rough grass in a wood, or sometimes under a bush, or at the foot of a pine-tree. Six to ten or a dozen eggs are laid; they are a little smaller than a Heron's, of a pale orange-brown, spotted and blotched with warm brown of deeper shades.

BLACK GROUSE.

(Tetrao tetrix.)

Blackcock, Greyhen, Black Game, Heath-poult. —The Blackcock still survives in some heathy districts of the south and west of England, and is common in many parts of the northern counties and of Scotland. While the Red or common Grouse is a thorough bird of the open moorlands, the Blackcock prefers the rough, half-wooded ground which intervenes between the moors and the lower cultivated lands. It is a considerably larger bird than the Grouse (for though it is a kind of Grouse itself, it is usual to speak of the two sexes as Blackcock and Greyhen, and to confine the name of Grouse to the species next described), and the sexes show a more striking contrast of plumage. The Blackcock is chiefly bluish-black in colour, tinged in parts with brown; there is a white patch on the wing and another under the tail, which ends in a striking out-turned fork, somewhat resembling on a smaller scale the tail of the Australian Lyre-bird. There is a bare red streak above the eye. The Greyhen is chiefly light reddish-brown, with numerous crescent-shaped markings of blackish-brown. Like the Caper-

caillie, this bird does not pair ; in spring-time the Blackcocks assemble in the early morning and compete for the hens with strange posturings and cries. Several hens mate with one cock, each hollowing a shallow nesting-place in the ground among the heather and rough scrubby vegetation ; seven to nine is the usual number of the eggs, which are rich yellow or yellowish-white in ground-colour, spotted with yellowish-brown. These birds feed on the shoots and seeds of various moorland and woodland plants, as well as on barley, and different kinds of berries. Large numbers of Black-game, as also of Capercaillie, are exported to England from Russia and Scandinavia, and may be seen at all times of year in poulterers' and game-dealers' shops.

RED GROUSE.

(*Lagopus scoticus*.)

Grouse, Red Grouse, Moor-fowl.—The Red Grouse is remarkable as the only British bird which is found nowhere else but in these islands. Its Continental representative is the Willow Grouse, known in Norway as the Ryper (properly “skov-ryper”—the “fjeld-ryper” is the Ptarmigan), and

in their summer plumage the two birds are very much alike. In winter, however, the Willow Grouse turns almost entirely white. Our British Grouse is found in Scotland, Wales, the northern and north-western counties of England, and (unlike the Blackcock) in Ireland ; but it is not found in the west and south of England. The cock Grouse is larger than the hen, and is a good deal darker in colour. This is a species which pairs, and pairing often takes place some time before the end of winter ; early in April the nest is hollowed in the ground among the roots of the heather, and lined with a slight layer of heather-stems and dry grass. Eight to ten or even more eggs are laid ; they are creamy white in ground-colour, thickly marked with large spots of rich chestnut, or dark brown. The alarm note of the cock, when he considers that danger threatens the nesting place, is a loud, repeated crowing noise, often delivered from some conspicuous perch on a wall, stone, or hillock. The food of the Grouse chiefly consists of the young shoots of the heather, and various species of low-growing berries commonly found on the moorlands. Severe weather and deep snow make them come further and further down from the lofty moors to those on lower land, and their haunts during the succeeding breeding season are determined to a considerable extent by the direction of these wan-

derings. Such local migrations also serve to mix the blood of the different stocks, and so to strengthen the breed on all the moors alike.

PTARMIGAN.

(*Lagopus mutus*.)

White Grouse, Rock Grouse.—The Ptarmigan is a bird of the bare, rocky mountain-tops, above the limit of tree growth, and in this country is only found on some of the highest mountains in Scotland. It has the habit, common to most birds and animals of Arctic climates, of gaining an almost completely white plumage in winter-time. In size it is a little smaller than the Grouse, and its finely mottled, greyish-brown summer plumage is as perfectly adapted to concealing it among the bare stones and dwarf and scanty plants which clothe the mountain-tops at that time as its dress of snowy whiteness is in winter. By far the greater number of the “Ptarmigan” of the game-shops are Continental Willow Grouse in winter plumage; the true Ptarmigan is distinctly smaller in size, and the cock has also a black stripe across the eye. In both species alike there is a black patch beneath the tail. Towards the end of May the Ptarmigan scrapes a hollow in the ground, and

lines it very scantily with stems of heather or grass ; the eight to ten eggs are a little smaller than those of the Grouse, and rather paler and less rich in ground colour. The Ptarmigan chiefly feeds, like the Grouse, on shoots of heather and other mountain plants, with various kinds of berries.

PHEASANT.

(*Phasianus colchicus*.)

The Pheasant is not a native British species, but has now flourished in these islands for at least nine hundred years, and is said to have been introduced by the Romans, to whom it was well known in southern European regions. As the name indicates, its original home was on the eastern shore of the Black Sea, near the river then called the Phasis ; but the Black-necked or “ Old English ” Pheasant, as it is now called, is almost extinct as a pure-bred species, having been swamped during the last century by large importations of the Ring-necked Pheasant from China. As is well known, the Pheasant does not pair, the cocks fighting for the possession of a squad of hens in March or early April. A hollow is scraped in the ground, among brambles or rank herbage, by the hen, and scantily lined with dry leaves or such casual vegetation as she finds lying

ready ; laying generally begins about the middle of April, and ten or twelve is the usual number of the eggs. They are light olive-brown, and vary a good deal in depth of shade. Sometimes more than one hen will lay in a nest, and two or more birds will occasionally even sit in company on an extensive floor of their joint laying. The Pheasant will occasionally nest on some convenient platform in a tree. The plumage of both cock and hen is too well known to need description. Their vegetable food is a varied mixture of acorns, berries, grain, etc., while they also eat a great quantity of snails, wireworms, and other more or less injurious insects. They roost in boughs of trees in a covert, this habit being most marked and regular in winter ; and just after sunset, in a frosty winter's afternoon, it is very interesting to see and hear them settle together on their perches, with a vast deal of fuss and crowing, to sleep out the period of fast-gathering darkness.

COMMON PARTRIDGE.

(*Perdix cinerea.*)

The creaking note of the Partridge is a well-known sound just after sunset in the arable fields, especially in early spring, and the cock bird may

often be seen uttering this noise while perched on some conspicuous clod. The birds generally pair in February or early March, but they nest later than the Pheasant, the eggs being laid, as a rule, in the first half of May. The nest is a shallow depression in the ground, with but little lining of dry leaves or grass-stems, and is placed among the grass or corn in a field, or in the waste herbage by the side of a path or road. Eight to ten eggs are usually laid, but sometimes more; occasionally more than one bird will lay in the same nest. The eggs are of the same olive-brown colour as the Pheasant's, but much smaller. The short round wings of the Partridge necessitate extremely rapid wing-beats, and its characteristic whirring flight is well known to all country-dwellers. The plumage of this bird is too well known to need description. The cock birds may, as a rule, be distinguished by the conspicuous reddish-brown horseshoe mark upon the breast; occasionally, however, this mark appears on young hens, who lose it after the first year. The food of the Partridge consists of grain, different sorts of green stuff, and many kinds of insects, as well as small snails and slugs. In very dry summers the young birds, which, like those of all this and many other ground-building families, can run about almost as soon as they are out of the egg, are often destroyed by falling down the

cracks in dry clayey soils, and being unable to climb out again. It is worth notice that nearly all the birds which build upon the ground, and leave the nest almost as soon as hatched (like the Partridge, Moorhen, Mallard, and many others) also lay a larger number of eggs than most of the species which nest in trees and bushes. This seems to show that in spite of the young birds being largely able to shift for themselves almost at once, the death-rate among them is very great, and large families are absolutely necessary in order to keep up the stock.

RED-LEGGED PARTRIDGE.

(*Caccabis rufa.*)

French Partridge, Guernsey Partridge.—For more than a hundred years the Red-legged Partridge has flourished in many districts of England, being most common in parts of the midlands and eastern counties. Introduced originally from France, it is fond of arable land and a light, dry soil, and it is scarce or unknown in many western districts, where grass land is more prevalent, and the soil and climate are moister than generally in the east. It is a little larger than the Common

Partridge, and is easily distinguishable in appearance. It has a white throat, followed by a conspicuous black band, with radiating lines beneath, and the flanks are very conspicuously barred with semicircular, wave-like marks of white, black, and chestnut. The back is clear brown, much less mottled than in the native species. The nest is a shallow hollow in the ground among grass, some green standing crop, or scrubby vegetation, and the ten to eighteen eggs, considerably larger than those of the Common Partridge, are pale, sandy yellow, freckled with light reddish-brown. The birds begin to lay in April. They are more often seen perching on palings, walls, or even trees, than the Common Partridge, which is only rarely to be seen on a fence, and never in a tree, while they also nest occasionally on the top of a stack. The food is of the same mixed insect and vegetable character as that of the kindred species. In spite of its name of Guernsey Partridge it is not a native bird in the Channel Islands. In shooting over dogs it has a troublesome way of running, rather than take wing; and it is not such a good bird to eat as our native species, its flesh being, by comparison, hard and dry.

QUAIL.

(*Coturnix communis*.)

The Quail is a summer visitor to this country in very varying numbers, and is found in England most frequently in the more easterly and southerly counties. At varying intervals it arrives in some one season in far greater numbers than usual, and these incursions serve to some extent to keep up the stock for several succeeding years. The last great year for Quails was the very hot, dry summer of 1893 ; since then they have become distinctly scarce again, though in 1899, another hot year, there was also a considerable influx ; but the miserably wet seasons of 1902 and 1903 have brought, for the present, their annual numbers in this country to a low ebb. To an even greater degree than Partridges they profit by a dry, fine breeding season. They have long been particularly numerous in many parts of Ireland ; but there, too, they are at present far scarcer than they used to be. The Quail is a quaint, plump, very sporting little bird, and much resembles a miniature Partridge with a short turned down tail. It arrives in May and breeds about the end of the month, or in June ; the nest is a small, scantily-lined hollow among standing crops, or rough grass and herbage, and

the seven to ten or a dozen eggs are creamy or yellowish-white in ground-colour, rather sharply pointed at the little end, and lightly or heavily blotched with rich, reddish-brown which varies a good deal in depth of shade. They are rather larger than a Missel Thrush's. The note of the cock consists of three harsh, curious notes, with a good deal of the quality of the Corncrake's peculiar voice, and often repeated many times in succession. The Quail, like the Land-rail, is one of the birds which are generally summer visitors only, but are now and then discovered in this country during the winter months. Its food consists of seeds, as well as of insects and small snails.

LAND-RAIL.

(*Crex pratensis.*)

Corncrake, Dakerhen.—The Land-rail, like the Nightingale, is one of the birds which are very much more familiar to ear than to eye, and also, like the Nightingale, its voice is to be heard both by day and by night. The two birds often hold a strange concert together in the meadow-lands of southern England during the still nights of May and June—strange because the supreme melody of

the Nightingale makes such an absolute contrast with the harsh, monotonous "crake, crake—crake, crake," of the Land-rail, a noise which seems to be measuring out the night like the rusty working of some curious instrument of time. This cry can be imitated very closely by drawing the fingers along the teeth of a comb; and a writer in a sporting paper described not long ago how, by imitating it in this way, he drew a Land-rail, in broad daylight, across his garden, and close up to the windows of his house, where it searched for the supposed rival eagerly but in vain. As a rule, however, it is a very shy and skulking bird, and a head raised for a moment above the growing grass in an early May meadow is as much as is generally seen of it, except when it is flushed in the fields during September partridge-shooting. It flies then so slowly and heavily, with awkwardly hanging legs, that it is a matter of marvel how it ever accomplishes its great sea-journeys at migration time. When seen running it is very noticeable from the position of the legs, which are placed very far back beneath the body, and from the skulking way in which the bird keeps its head and foreparts stretched out almost straight before it as it slips away into cover. In size it is rather smaller than the Moorhen, and a good deal slenderer in build. In colour it is a mottled reddish-brown above, and pale greyish-

white beneath. The tail is pointed and very short, which adds to the disproportionate appearance of the body and legs. In the south of England it is generally heard first about the end of the third week in April, though sometimes earlier ; its more northern haunts it reaches more often in May. It seems especially common in the grass-fields of many of the fertile dales and valleys among the mountains of Wales, Cumberland, and parts of Scotland ; and it is numerous in Ireland. It prefers hay-fields and standing grass, though it is also often found among young corn and other green crops. The nest is made of dry grass and herbage, and is placed on the ground in the thick growth of the fields which the birds frequent. The eggs are generally laid towards the end of May or early in June ; they run from seven to nine or ten in number, and are reddish or creamy buff in ground colour, fairly plentifully spotted with reddish-pink, reddish-brown, and lighter tones of grey. They are not unlike the Moorhen's, but are distinctly smaller, as well as softer and richer in colouring. The food of the Land-rail consists of various kinds of seeds, green stuff, and especially insects, snails, and slugs.

SPOTTED CRAKE.

(Porzana maruetta.)

This is the smallest of the three species of Crake or Rail regularly occurring in England, and also the rarest. Like the Water-rail, it is a marsh-loving species, and has suffered much from the drainage of marsh land in so many parts of the country ; but it is probably commoner than is supposed in many districts, owing to its extremely shy and retiring habits. It is a small bird, scarcely more than half the size of the Moorhen ; its upper parts are dark olive-green, sprinkled with small white spots, while the under parts are paler brown, also spotted with white. It has the same length of body in front of the legs as the other members of the family ; the toes are long and slender, thus supporting the bird in soft and marshy places by distributing its weight over a larger surface. It arrives in April, and leaves, as a rule, in October, though it is sometimes found in winter. The nest is placed in the thick of the reeds or sedge, and is built of dry flags, like the Moorhen's, but is lined with dry grass. The eight or nine eggs rather resemble the Sandpiper's, though they are a good deal smaller and less pointed in shape ; they are

pale yellowish-brown in ground-colour, spotted with deep yellow or red-brown, as well as with fainter grey stains, and minute darker dots.

WATER-RAIL.

(*Rallus aquaticus*.)

Brook-runner, Bilcock, Skiddycock.—The Water-rail, unlike the other birds of its family, is found in England at all times of the year, though a good deal of migration probably goes on from one district to another. It is not very uncommon in many marshy and sedgy tracts of country, and owing to its extremely shy and skulking habits it may often be present though unsuspected. It is much like the Land-rail in build and general appearance, but is distinctly smaller; the plumage is also darker, the breast and under parts in particular being duskier than in the case of the Land-rail, and of a deep slaty-grey. The bill is long and red. The Water-rail nests all through the summer, but May is the most frequent date for the eggs. The nest is built among thick reeds, sedges, and other marshy vegetation, both in very soft, wet spots, or on fairly dry land; it is made of dry flags and sedge, like the Moorhen's, but is much smaller and less substantial. Six to ten eggs are generally laid; they are pale

creamy yellow, spotted rather sparingly with faded reddish-pink and with grey. They are slightly smaller than the Land-rail's egg, and very much like a weakly coloured or faded specimen in their tints and markings. The Water-rail utters a loud and peculiar cry during the breeding season, quite different from the "crake" of the Land-rail. When disturbed it makes its escape by slipping swiftly through the reeds and undergrowth, and can scarcely be forced to take wing.

MOORHEN.

(*Gallinula chloropus.*)

Waterhen.—The Moorhen is one of the best known of British water-birds, and is familiar at all times of year. During the winter, however, it often leaves many of the smaller pools and streams, and while returning to its breeding-places in April it may sometimes be found in unexpected situations far from water or among the foliage of thick evergreen trees. It often becomes partially tame, and will feed in company with domestic hens and ducks in poultry-yards near its natural haunts. Its sharp, croaking cry is well known in the neighbourhood of the water-side. Though not a brightly-coloured bird, there is a great deal of beauty about its quietly

contrasted plumage of olive-brown and deep slaty-grey, set off by a white streak in the wing, and the conspicuous white patches beneath the tail. The upper mandible of the bill is extended backwards into a curious plate on the front part of the head. This plate is bright red in full-grown birds, but greenish before they reach maturity. The newly-hatched Moorhen is a fluff-ball of sooty black, and it takes to the water within a few hours of its leaving the shell. A half-hatched nestful of young Moorhens, with some of the young birds already paddling among the reeds, others still lying in the nest, and some of the eggs still unbroken, is a charming and interesting sight. Nesting begins very early in the season, often as soon as March, and sometimes goes on till July. The nest is generally built among the reeds, but often on a stump or on an outstretched bough close to the water's edge, or resting on the water; occasionally it is found at some height in a tree, especially on the flat top of a pollard willow. It is built of dry flags, and is usually a fairly solid and roomy structure, as it has need to be, indeed, seeing that it is sometimes required to hold as many as thirteen eggs. There are rarely less than six, and the average number is eight. They are pale yellowish-brown or brownish-white in ground-colour, rather sparingly spotted and speckled with

warm reddish-brown, and often with ashy grey. Smaller, flatter nests, built of the same dry materials, are often found among the reeds as the season goes on ; there are supplementary platforms or resting-places, built by the half-grown young of earlier broods, as well as by the cock. The still slighter platforms made of green reeds gnawed into lengths are the work of water-rats, not of Moorhens ; but sometimes an abandoned Moorhen's nest is used as the foundation for one of these water-rat's resting-places and dining-tables. The name of Waterhen is much more descriptive of the habits of this species than the one more generally in use, since the Moorhen is by no means a bird of what we now know as the moors ; but in earlier times "moor" and "mere" were used in the same sense to describe waste and marshy ground, and "Moorhen" is a legacy from that date.

COOT.

(*Fulica atra.*)

The Coot is a larger bird than the Moorhen, and is found only upon the larger lakes and pools, and broad, sluggish, lowland streams. Its plumage is almost completely black, and at a little distance no other colour can be seen, except the conspicuous

white plate upon the forehead, which has given it its proverbial reputation for baldness. Like the Moorhen and Dabchick, it often leaves its breeding haunts during hard winter weather, and resorts to larger lakes and tidal waters. Its feet are very remarkable in structure; each toe is bordered by several flat, fleshy lobes, which partly take the place of the webbing on the feet of ducks, and doubtless help to support the bird when walking on a soft, muddy surface, as well as aiding it in swimming. Nesting begins early in April, and is generally over before the end of May; the nest is a large and solid bowl of dry flags, very much like a magnified Moorhen's nest, and is built among the reeds and sedges, often in an exposed position, but generally at some distance from the bank. Six to ten eggs are laid, decidedly pointed in shape, and a good deal larger than the Moorhen's. They are pale brownish-white or "stone-colour," sparingly but evenly dotted with specks of reddish or chocolate-brown. They are paler and less rich in colour and markings than the Moorhen's, and resemble much more closely the bleached and speckled flag-blades of which the nest is composed. The Coot is a wary bird in habit; when a brood is disturbed upon a pool the young ones (which leave the nest a day or two after they are hatched) often take shelter among the reeds, while

the old birds swim about with an anxious, watchful note, apparently meant to warn the young that the coast is not yet clear.

STONE CURLEW.

(*Ædicnemus scolopax*.)

Great Plover, Whistling Plover, Norfolk Plover, Thick-knee.—This curious and interesting bird is a lover of wide, dry, open downs and warrens, and is still found in some numbers annually in suitable parts of the country, such as the North, South, Hampshire, and Berkshire Downs, and the wide chalky and sandy wastes in south-western Norfolk. It is a summer visitor, but occasionally remains for the winter, especially in the extreme south-west. It appears nearly twice the size of the Common Plover, which generally haunts the same tracts of country, and is quite different in appearance. As seen on the wing, it is greyish-brown above, with black tips to the wings (which are much curved, like the Plover's), and paler brown beneath; a nocturnal species, it is unwilling to fly by day except when disturbed upon its haunts, and then generally skims out of range with a rather slow and flapping flight near the ground. It has long legs and a rather long neck, and when standing

S 2

July 16, 1911. Two birds apparently of this species seen flying near at hand over some stony fields between Cliford & Hensley

still or walking slowly is very upright in attitude, but when it runs swiftly it has the neck and head much thrust out in front. It will also squat close to the ground, with the neck in the same attitude and pressed to the soil. At close quarters the plumage is seen to be medium mottled brown on the back, and buff streaked with brown on the breast and head. The head is large and the eye very large and yellow ; the name of "Thick-knee" refers to a characteristic enlargement of the knee-joints, which is not always, however, very conspicuous in old birds. The Stone Curlew may often be seen in flocks and parties, especially near migration time in April and September ; the eggs are sometimes laid by the middle of April, but usually about the beginning of May. The nest is never more than a slight hollow pressed in the dry soil, and often the eggs are simply laid among the flints which thickly cover the arable fields on the downs. When laid on the open turfy expanses they are generally in one of the small broken patches of earth and stones. They are brownish-buff in ground colour, spotted and streaked with medium brown, and sometimes with ash-grey ; two is the usual number, but there are occasionally three, as in the nest depicted in the frontispiece, which was found on the South Downs. The colour of the eggs, as well as of the old and nestling

birds, is extremely well adapted for concealing them among their stony surroundings, and the young instinctively squat absolutely flat and motionless upon the ground, with their long necks stretched out in front in the attitude sometimes adopted by the old birds. Stone Curlews are silent birds by day, but after nightfall they sometimes make a great noise with their curious, twisting whistle, especially on moonlight nights. They chiefly feed on worms, slugs, and similar small forms of animal life, probably including the small shell-snails which are very common on the chalky downs, and also on night-flying moths and beetles. Their large eyes are explained by these night-feeding habits.

DOTTEREL.

(*Eudromias morinellus*.)

The Dotterel is one of the smaller kinds of Plover, and is now very rare as a breeding species in this country, only nesting on some of the higher Scotch mountains, and in very small numbers upon those of the English Lake District. It has suffered much from its tame and confiding habits, which have given it the additional contemptuous title of "Foolish" Dotterel, as well, probably, as its own

regular name, which also refers to its “doting” foolishness. It arrives in England in April, and is sometimes met with on the hills of the eastern part of England, as well as about the sea-shore, during its passage northwards at this time. In plumage it is greyish-brown above, with a white band at the end of the tail-feathers; the breast has a white transverse stripe dividing a greyish-brown patch above it from the bright chestnut below; the crown is black, there is a white stripe behind the eyes, and a pale patch on the throat. The nest is a mere hollow in the moss and lichens of the upper parts of the mountains; the three eggs, laid about the beginning of June, are rather smaller than the Plover’s, with the same family appearance, being a more yellowish tinge of olive-green in ground colour, spotted and blotched with deep sepia-brown.

GOLDEN PLOVER.

(*Charadrius pluvialis.*)

Whistling Plover.—The Golden Plover is most familiar in moorland regions, being but rarely seen in low cultivated districts even in winter, when it is most numerous. It is to a great extent a winter visitor, appearing in large flocks, but it also breeds

in many of the northern and western parts of the kingdom. It is a little smaller than the common Peewit, and lacks its conspicuous crest, while its wings are not so long and crooked in flight. There is a great difference between its summer and winter states of plumage. In winter, when it is most familiar, its upper parts are medium brown, thickly spotted with dullish yellow, and the under parts dull white, tinged with yellowish-brown upon the breast. Early in spring, however, the whole of the cheeks, breast, and under parts begin to turn jet black, while the back also becomes darker in shade, and this plumage remains till nearly the end of the summer. The black on the hen bird is not so complete as in the case of the cock. The last of the flocks of Golden Plover have, as a rule, split up and paired off in their mountain and moorland haunts by the beginning of May. The nest may be found from the middle of April ; it is a mere hollow, scantily lined with bents, among the grass, moss, or heather of the moors, and is often but very little hidden, though the eggs are well concealed by their colour. They are four in number and large for the size of the bird, being a little larger than the Peewit's, and rather less pointed in shape. They are much like them in colour and markings, but the ground-colour is more yellow, or even dull reddish-brown, and the

spots are rather rounder and less jagged. The flight of the Golden Plover is beautifully strong, swift, and buoyant ; the commonest call-note is a clear, musical whistle. Like the Common Plover, it chiefly feeds on worms, insects, and slugs.

PLOVER.

(*Vanellus vulgaris*.)

Green Plover, Lapwing, Peewit.—The Green Plover is in very many country districts of England the only every-day representative of the great tribe of shore or wading-birds (*Limicolae*—"mud-haunters"), embracing between forty and fifty British species. During spring and early summer it chiefly haunts open commons and arable land, and heathy or marshy meadows and pastures ; for the rest of the year it assembles into roving flocks, which are rather more general in their range. Most people are familiar with the Plover's antics on the wing, and its eccentric, musical cries when its breeding-places are disturbed in the spring ; so long, however, as there are eggs in the nest it is only the cock which attempts to divert attention by his noisy manœuvres, the hen slipping quietly off to a distance before showing herself. When the young are hatched the hen plays the

same tricks as the cock, both birds doing their utmost to prevent the squatting chicks being discovered. Like most birds which are hatched on the open ground, the young Plovers are able to run about as soon as they leave the shell, and are consequently much more perfectly developed before hatching than is the case with those chicks which pass a helpless nursing-period in the nest. The well-known "Plovers' eggs" of table use are laid in a slight saucer-like hollow scooped in the ground, and lined with a few bents. As is characteristic among all the tribe of waders, they are very pointed, or pear-like, in shape, and are placed symmetrically in the nest with the points to the centre, by which method they occupy the least possible space. This probably aids concealment, and it would naturally also enable the bird to cover them more effectually while sitting, a point of some importance, as, owing to the advanced development of the chick before it is hatched, the eggs of wading-birds are very large in proportion to the parent. Plovers' eggs are generally olive-green in ground-colour, but vary from that tint to yellowish-brown; they are boldly and plentifully marked with angular-looking spots of very dark brown. It is not the case, as is sometimes stated, that the eggs vary in colour according as they are laid in a grass field or a ploughed land; this is

an instance of the way in which the theory of protective imitation is sometimes carried to quite imaginary lengths. The empty nests, so often found, are in most cases not strictly nests at all, but are made by the cock as he rolls and presses himself upon the earth to show off before the hen in the breeding season. Owing to its diet largely consisting of wireworms and other insect pests, the Plover is a bird extremely helpful to agriculture.

WOODCOCK.

(*Scolopax rusticola*.)

The Woodcock is another well-known winter visitor which nests in Britain in smaller, but increasing, numbers. The great annual inrush occurs in October and the early part of November, the greatest number of birds being expected to arrive at the time of the full moon nearest the beginning of November. These winter immigrants are chiefly birds which have bred in Norway, Sweden, and perhaps Northern Russia ; but it is at present uncertain how far the birds which breed in Britain share in a similar south-westward movement, and how far they remain in their summer haunts for the winter season. In different cases, birds marked in summer have been shot in autumn both in the

same county and a long distance to southward ; and until a larger quantity of evidence has been collected it is impossible to say whether our own birds are generally accustomed to quit their summer haunts, and leave their places to be filled by foreigners, or whether they have no very definite winter movement, and allow the foreigners to pass them by and settle where they can. Woodcock are very numerous in winter in the west of Ireland ; but it is difficult to say how far this is due to the flights on migration being brought up short at the "land's end," on the verge of the Atlantic, or how far it is simply to be put down to there being abundance of suitable ground for them in that part of the country. The Woodcock's long bill, large, prominent eye, and beautifully pencilled plumage of brown and grey are too well known to need a detailed description ; and it is also famous for its baffling, twisting flight. Probably owing to the planting of new game coverts on many sporting estates, the Woodcock has of late years bred in this country in considerably larger numbers than formerly. It generally chooses a dense, quiet, and shady wood ; the nest is a depression in the ground, often at the foot of a tree, and loosely and roughly lined with dry leaves or bracken. The eggs are generally laid in April, though sometimes in March. They are a little

longer than the Plover's, and rounder and bulkier in shape, though fairly sharply pointed at the little end; in colour they are pale yellowish-brown, blotched and spotted with red-brown, and pale ash-grey. The old bird will occasionally pick up her young ones, and transport them to a place of safety, if the nesting-ground is disturbed; her method of carrying them is apparently by claspings them between her legs, aided by her downbent bill. The Woodcock feeds by night, and the long bills of this and all the kindred species are instruments specially adapted to securing worms and numerous other forms of life by probing for them in the mud and ooze.

COMMON SNIPE.

(*Gallinago coelestis*.)

Heather-bleater, Whole Snipe.—This is the only kind of Snipe which is frequently met with in most parts of the country, and the only one which nests here. Of the two other species of true Snipe which visit us in winter, the Great, Double, or Solitary Snipe (*Gallinago major*) is but rarely seen, and the Jack or Half Snipe (*Gallinago gallinula*) is scarcely frequent enough to call for a detailed description. A large number of the Common Snipe which are

found here in winter return to Northern Europe to breed ; but a number still nest in many marshy patches of ground throughout the kingdom, though most frequently in the former Fen Country, and the wilder moorlands of the north and west. The strange “drumming” or “bleating” of the Snipe is produced by it only at the breeding-season, and may sometimes be heard from the middle of February onwards. The bird swoops and hovers at a considerable height in the air, and the noise is always produced at the moment when it suddenly plunges downward with rapidly-beating wings, and ceases when it begins to rise again. It is still not absolutely certain that it may not be produced by the bird’s vocal organs, but most naturalists are now agreed that it is probably caused by the rapid beating of the stiff wing quills. The sound is possibly increased by the outspread feathers of the tail acting as a kind of drum or sounding-board ; it is difficult to conceive that a noise of such loudness could be produced by the mere beating of the Snipe’s wings, without some resonator to give body to the sound, on the principle of the violin or banjo. A noise of the same kind is produced by the Ruffed Grouse of North America ; this bird produces it while standing on a log, or on the ground, and a naturalist who has kept it for the purpose of observation has described it as rapidly

beating its wings, while swelling out the body-feathers beneath them into a kind of cushion, a feature of the performance which also seems to point to some such resonator being necessary. The Snipe generally nests in April, the nest being a slight cup or lining of dry grass, placed inside a tussock of grass or rushes. The four handsome eggs have the characteristic pointed shape of all this large family, and are very big for the size of the bird, being larger than an average Partridge's. They vary from medium olive-green to light brownish-buff in ground-colour, and are richly spotted and blotched with several shades of brown. Usually the markings run obliquely round the egg in a sort of eddy, or spiral; this very beautiful effect is occasionally seen in the eggs of other species, and is probably due to the rotatory motion of the egg while the colours are being applied to the shell in the egg-producing organs. The extreme sensitiveness of the Snipe's long bill may be perceived from the numerous small pores which indent it at the tip. The flight of the Snipe is very swift and zig-zag, and when it is flushed it utters the familiar double note which is generally rendered as "scape, scape." Its plumage of mottled buffs and browns is too familiar to need close description; but the two long buff stripes which run from the base of the bill, back over

the head, and nearly as far as the tail, are much more noticeable in a living specimen than when the plumage is disturbed and dragged after death.

DUNLIN.

(*Tringa alpina*.)

Sea Snipe, Sea Lark, Oxbird, Purre.—The Dunlin is most familiar as a bird of the sea-shore and tidal mud-banks. It is seen in its light skimming flocks at all seasons of the year, but especially in winter, when it returns, like the Curlew, from the high inland moors whither it mostly goes to breed, or from other regions far to northward of our islands. It nests occasionally in Devon, Cornwall, and Wales, more commonly in the counties north of the Trent, and in Ireland, and fairly frequently over a large part of Scotland and its islands. Occasionally it remains to breed on the sea-marshes and other waste land near the shore. In summer plumage it has the head, neck, and back warm reddish-brown, mottled with black; the throat, wings, and tail are greyish, while there is a large black patch on the lower part of the breast. In winter it becomes plain greyish above and silvery white beneath. It is hardly as large as the Thrush in body, but its long legs and bill

make it look a larger bird, though a very light and graceful one. The nest is built in May or early June ; it is a slight lining of dry stems and grass, placed in some tussock of grass, heather, or other suitable vegetation. The eggs are very large for the small size of the bird, very pointed in shape, and in other respects much like a smaller Snipe's ; they are various tints of clear greenish- or yellowish-brown in ground colour, handsomely blotched and spotted with rich brown in two or three different shades.

COMMON SANDPIPER.

(*Totanus hypoleucus*.)

Summer Snipe, Sand Lark.—The Sandpiper is a summer visitor well known along the gravelly margin of many lakes, rivers, and streams in the hilly regions of the north and west, from April to September ; while it is often to be seen in April and May, and less frequently in autumn, haunting the streams of the lower parts of England on its way to and from its summer home. It has a swift, skimming flight, generally accompanied by a thin, shrill cry. In plumage it is brownish-grey above, paler grey on the neck and upper breast, and silvery white on the throat and belly ; there is also some white at the tip of the outer tail feathers, but

July 17, 1911. 3 flying along Thames & alighting & feeding on mud by banks. One perched on dead branch by tree over water. Flight, motions on ground & general appearance exactly like those of our Spotted. I saw several Harems & Manderhals.

they are mostly mottled brownish-grey, and this is the easiest point by which to distinguish it from the Green Sandpiper. The eggs are laid in May, sometimes in June ; they may be placed among the bare shingle of the stream or lake, with little or no nest, or else in a better sheltered situation among the deep, mixed vegetation of some bank or hill-side fairly near the water. In this case there is generally a rough but fairly plentiful nest of dry grass and stems. The four eggs are not quite so pointed as those of various other species of this family ; they are brownish-buff or warm biscuit-colour in ground, spotted fairly freely with medium and light brown. The Sandpiper is a fairy-like and delightful little bird, and when it comes to our southern streams on its passage in spring, as a straggler from the great armies of this tribe of shore-birds which nests in the remotest and loneliest regions, there is an air of something unusual and foreign about it, which makes its visits always interesting and striking.

GREEN SANDPIPER.

(*Totanus ochropus.*)

The Green Sandpiper is not at all uncommon as a spring and autumn visitor to streams in many

parts of the country, but it has never been known to breed in Britain. The birds which we see in April or May are bound far northward towards the Arctic Circle. It is only a trifle larger than the Common Sandpiper, and closely resembles it, though it is darker on the back. But the markings of the tail feathers make it fairly easy to distinguish, especially when it is flying away from the eye; there is a conspicuous white patch at the base of the tail, and this is followed by conspicuous black and white bars extending all across it, instead of the much less conspicuous ones, on the outside only, which the Common Sandpiper shows. It is called the Green Sandpiper from the colour of its legs, and the Latin title has the same meaning; but this means of recognition is of but little use for outdoor observation.

REDSHANK.

(*Totanus calidris.*)

Pool Snipe, Red-legged Sandpiper, Yelper, Took.
—The Redshank breeds in decreasing numbers in many of the larger tracts of marsh throughout the kingdom, though it is best known as a shore bird in winter. A number of pairs often breed in fairly close neighbourhood. It is a considerably larger bird than the Sandpipers, nearly as large as

July 18, 1911. One on edge of pool in
pasture near J. J. J.

the Golden Plover ; but in length of beak and legs, and its general attitudes when upon the ground, it clearly shows itself to belong to the Sandpiper branch of this wading and mud-haunting family. In the breeding season it is mostly warm mottled brown on the upper parts, and white, a good deal speckled with greyish-brown, beneath ; the tail is barred black and white, and the wings in flight are also barred very conspicuously with white. The hen bird is a trifle larger than the cock. The legs are bright red. In winter the upper parts are greyish-brown, with a white patch above the tail, and the under parts silvery white, a little clouded with grey. The Redshank breeds in April or May, the scanty nest of dry grass and stems being generally hidden in a tussock, but sometimes completely uncovered. The four eggs are much like a Plover's, but generally rather smaller, and even more pointed in shape ; the ground-colour is a brownish-yellow, paler, and less green than that of the ordinary Plover's egg, and the sepia-brown spots are smaller, rounder, and less jagged. The Redshank is one of the noisiest and most anxious of birds when danger seems to threaten its eggs or young ; the alarmed pairs fly close overhead with a continual shrill cry, and swoop downward as if threatening an actual attack.

The GREENSHANK (*Totanus canescens*) is a rather larger bird, and very much more uncommon. It occasionally breeds in parts of the Scottish Highlands, and is also seen sometimes in inland places, as well as along the coast, on its spring and autumn migrations. Its upper parts in the breeding season are chiefly mottled black and grey, instead of brown, as in the Redshank, and it may also be recognised by its bill being slightly curved up at the end. The nest is generally, but not always, placed in a marshy situation or near water, and the four eggs are about the size of the Plover's, but lighter in ground-colour, and spotted with grey as well as deep brown.

CURLEW.

(*Numenius arquatus*.)

Whaup.—The wary form and wild voice of the Curlew are known to everyone on the moorlands and mountains of the west and north during the breeding season, and there is no bird so typical of the life of these wide and airy solitudes. For the winter the Curlew retires to the sea-shore and the estuaries of rivers, and now and then he is to be seen in spring or autumn pausing in quieter inland places than he usually frequents, on his northward

or southward way. He is a large bird, and his long legs and neck and, in particular, that conspicuous, long, curved bill give him an additional air of size and distinction; while his mottled brown plumage is unmistakably handsome in a quiet fashion, though in no way ambitious or gaudy. The Curlew breeds in April or early in May; the rough, scanty nest of dry grass or rusty heather stems is placed among the heather or in rough grass; the birds seem particularly fond of the large patches of dense tussocky grass, unmixed with heather, which often lie high on the mountain sides, just beneath the last ascent to the summit. The eggs are not always very closely concealed; they are four in number, and a good deal pointed in shape; their ground-colour is green, and they are spotted with brown in two or three different shades. While he stays in his summer quarters the Curlew feeds on slugs, snails, insects, and berries; but after he migrates to the sea-shore he adopts a diet of shell-fish and other small sea creatures, and his flesh then becomes very rank and fishy. Curlews are almost the most difficult of all birds to approach, and they seem to delight in giving the alarm, with their musical, ringing cry, to all the other birds in the neighbourhood. The cry recalls some of the notes of the Plover, but is far more free and powerful; and it always challenges

the attention as something wild and new, when the ear that hears it first reaches the heart of the moorland solitudes.

GREAT CRESTED GREBE.

(*Podiceps cristatus*.)

Tippet Grebe, Loon, Cargoose.—This handsome water-bird has noticeably increased in numbers during the last dozen years or so, owing to more efficient protection, and a pair or two are now to be seen in summer on many lakes and reservoirs over the greater part of the kingdom. It is found in the country throughout the year, but often leaves its breeding places in early autumn, and returns to them again about the end of March. It is generally seen swimming at some distance from the land, where it is a conspicuous and easily recognisable species, being considerably larger than the Coot, while its long neck and remarkable plumage about the head make it unlike any other bird which frequents such waters. It does not take very readily to the wing, but may sometimes be seen flying strongly at a height, in the manner of the Wild Duck. Like most diving-birds, it swims low upon the surface; its upper parts are chiefly dark reddish-brown, and its throat, breast, and under parts silvery white. The

double, ear-like crest is dark brown, as is also the top of the head ; the cheeks are white, and the curious frill or tippet surrounding the throat is chestnut shading into black. In the female this characteristic plumage is less developed. The nest is generally put together in April ; like the Dabchick's, it is simply a wet, pudding-like heap of green, trailing water-weeds, and floats upon the surface of the water, secured by standing reeds or submerged vegetation. Three to five eggs are laid, of the characteristic elongated shape of the Dabchick's, but considerably larger ; they are pure, chalky white when first laid, as in the case of the Dabchick, but soon become stained and brown, owing to the fermenting juices of the water-plants which compose the sodden nest. They are generally laid in the early part of May.

DABCHICK.

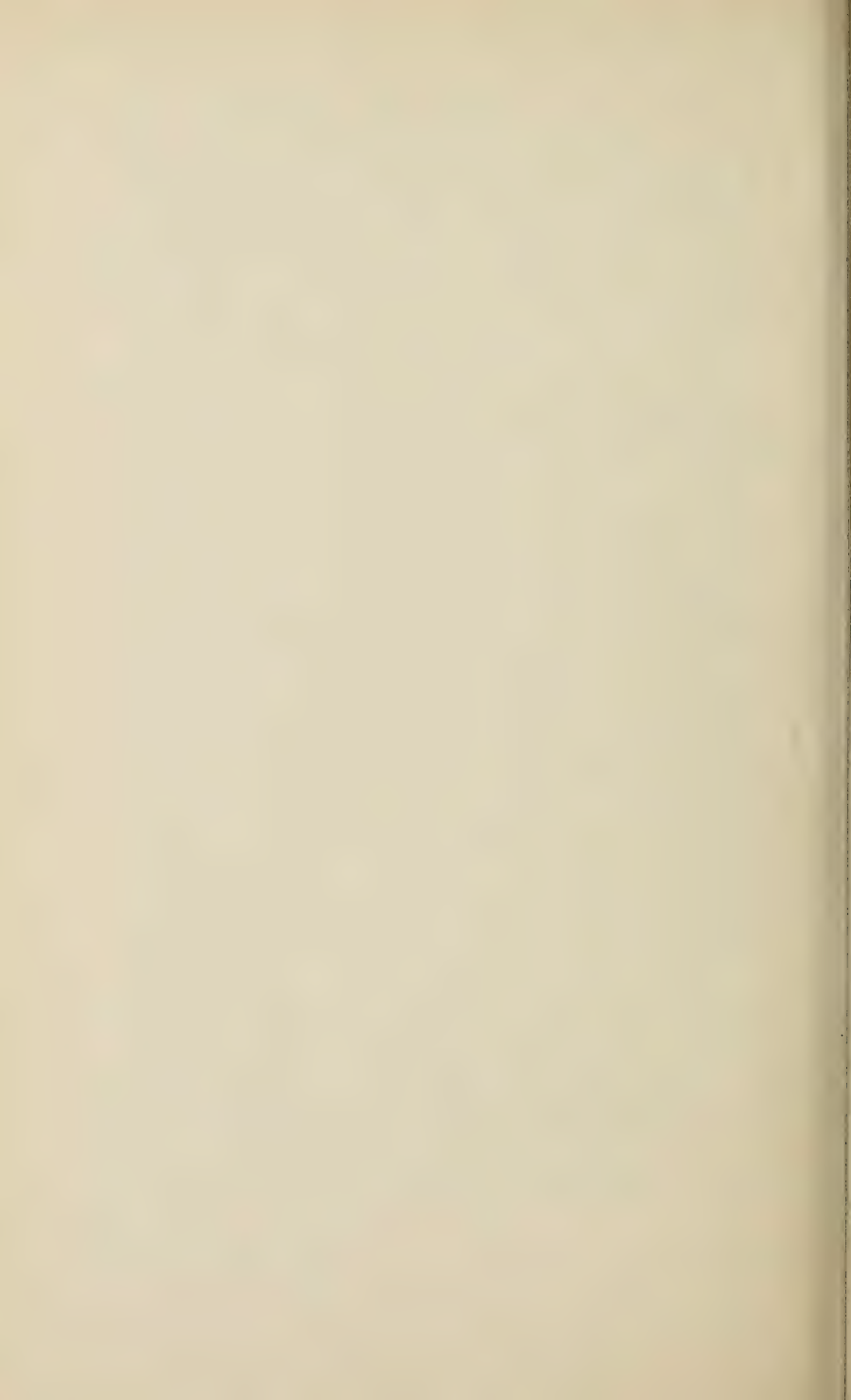
(*Podiceps fluviatilis*.)

Little Grebe, Didapper, Ducker.—The Dabchick, or Little Grebe, is common throughout the year on many of the larger lakes, pools and streams in most parts of the country, though it often leaves its breeding-places for larger sheets of water during the winter months. It is an extremely shy and nimble little bird, and the swiftness and readi-

July 17, 1911. ②③ in stream between
Hawley & Mtn. Island.

ness with which it pops beneath the surface, and emerges at many yards' distance, make it very interesting to watch. It is as active in its movements as a lizard, and there seems also something harmlessly snake-like about its slender, lissom neck and elongated head and bill, which it uses for twisting and peering about with the utmost vigilance and cheeriness. In colour it is chiefly a dusky, smoky brown, tinged with dull chestnut about the head and neck, and inclining to white on the throat and under parts. The plumage becomes a little paler and more faded-looking during the winter months. It seldom flies, and is awkward and ungainly on land, its whole physical development being adapted for swimming, and especially for diving. The structure of the feet in particular is specialised for use in the water, and diverted from purposes of walking; the curious flattened shape and lop-sided position of the toes gives the bird extreme agility in its own peculiar element, though but ill adapted for progress on dry land. The Dabchick nests as early as April, and as late as July; but May and June are the height of the season for it. The nest is a wet, round pudding of green water-weed, floating two-thirds under water, and kept in place by standing reeds or sedges, or by the dipping twigs of a bush. The five or six eggs are long in shape, and almost

equally pointed at each end ; they are a clean, chalky white when first laid, but very quickly become a dirty, drab brown, on being covered with a blanket of the rotting weeds of the nest. While there is only one egg in the nest it is often left uncovered during the Dabchick's absence, and is then pure white ; but after a day or two the eggs are usually more or less completely hidden when the bird is away, and she will pull the weed over them with a few surprisingly rapid strokes of her bill before making good her own escape on being surprised. The heat generated by the decaying water-weed (which is easily perceptible by the hand) helps, no doubt, to hatch the eggs, as if in an incubator ; while the chalky coating which covers the greenish inner shell probably protects them from being addled by the wet. The newly-hatched Dabchick is a lively and delightful little creature, with a velvety coat curiously striped with dark and light brown, like a miniature tabby water-kitten. The most characteristic note of this bird, chiefly heard in spring, is a loud, long gurgling or bubbling cry. When diving for its food, which chiefly consists of small fish and water-insects, it generally seems to remain under water for about fifteen seconds, and it often covers a surprising distance before it emerges.



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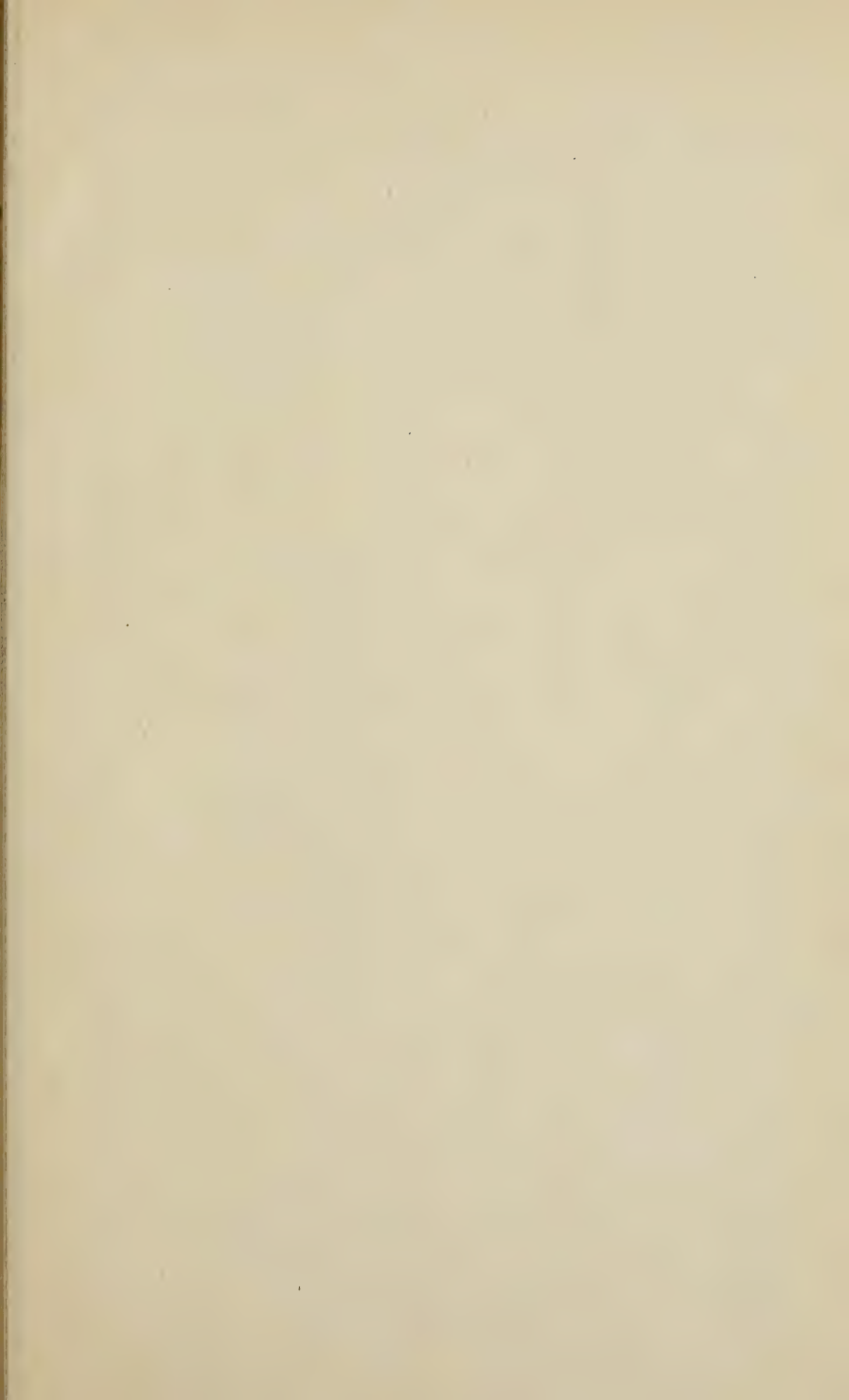
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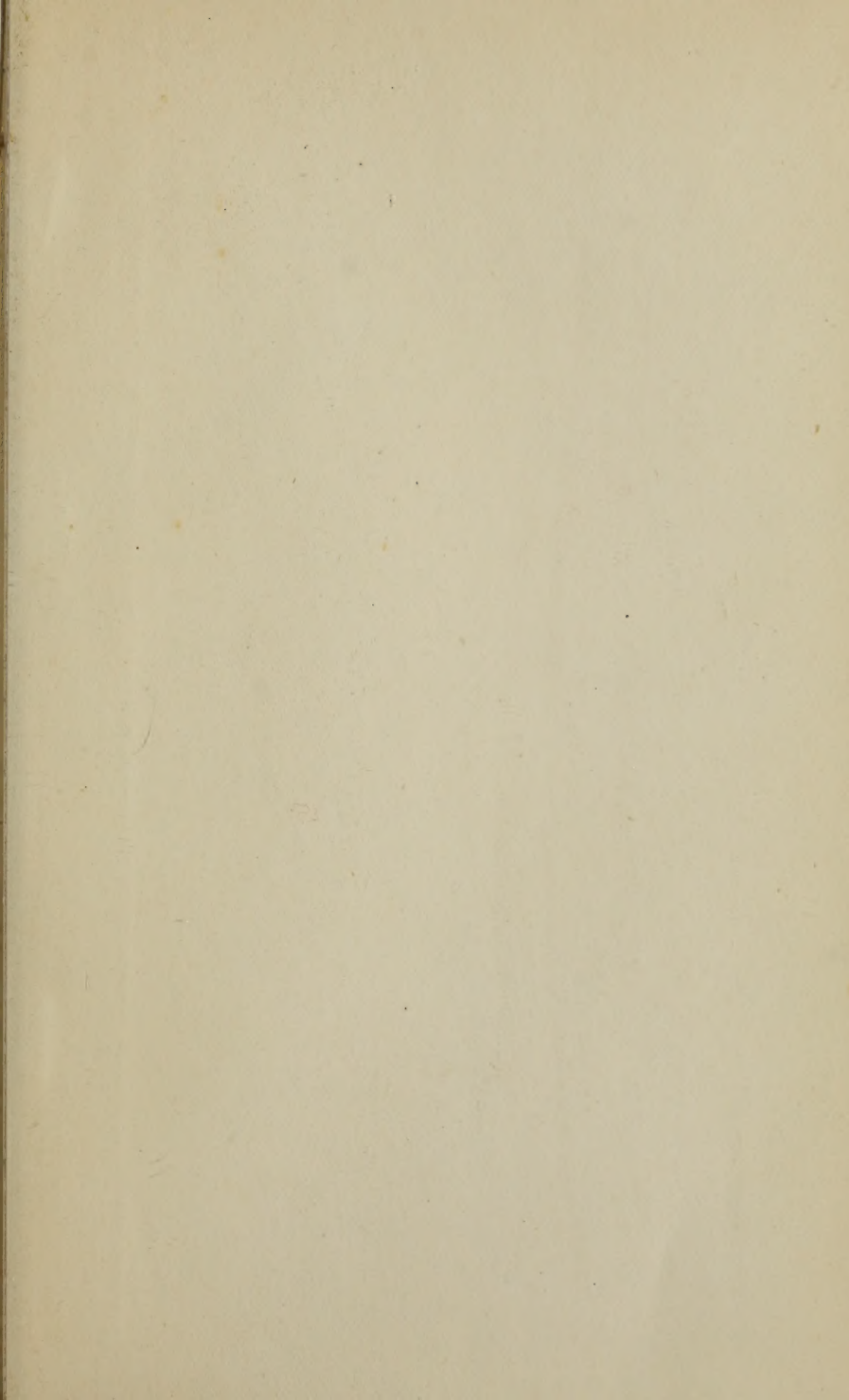
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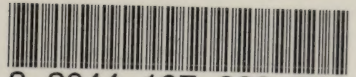
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